PRACTITIONERS' NUMBER

Vol. IV. TORONTO, JAN.-FEBRUARY, 1923 No. 1

STORAGE

The Canadian Veterinary Record

Published for the Profession in the Interest of Veterinary Science

VETERINARY LIBRARY MAR 12 1923 UNIVERSITY OF TORONTO

Published by The Canadian Veterinary Record
573 Keele Street, Toronto, Ont.

Subscription price $2.00 per year. Single copies 50c.
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Entered as second class mail matter at Toronto General Post Office, February 3rd, 1921.

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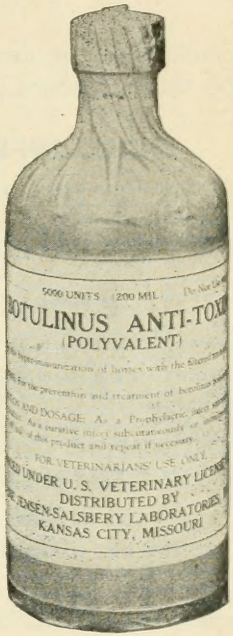

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The Canadian Veterinary Record

573 Keele Street, Toronto, Ontario, Canada

ESTABLISHED 1920

Official publication of the Canadian Veterinary Profession. Entered as Second Class publishing matter at the Toronto General Post Office.

Subscription price $2.00 per year. Single copies 50 cents, post free to all Countries. Cheques to be made payable at par, Canadian Veterinary Record, Toronto.

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The
Canadian Veterinary Record

Published for the Profession in the Interest of Veterinary Science

VOLUME IV. TORONTO, JAN.-FEBRUARY, 1923 NUMBER 1

Editorial

To Our Subscribers—Greetings!

With the presentation of this, the first number of 1923, Volume IV, of the *Canadian Veterinary Record* makes its bow to the profession.

Encouraged by the reception afforded this little periodical in the past, we take the opportunity to announce that the Editorial Staff are resolved to continue its publication this year.

As will be seen, some changes have been made in the *Record* over the old style, which we trust will be appreciated. While the size of the page is smaller, the actual contents have been increased by adding eight pages to the issue and using a slightly smaller type.

We realize the vast extent of Canada, and the scattered nature of the profession, in whose care lies the health of the Dominion's greatest industry, and the fact that many veterinarians living in distant parts, are not overburdened with journals devoted to their service. With this knowledge it has been our aim, during the past three years to introduce the *Record* into every Province, City, Town and Village in Canada where there is a Veterinary Surgeon, and whose address we were able to obtain through all available sources.

We have endeavoured to convey a message with every issue together with articles containing information of the latest achievements accomplished by workers in the many fields of Veterinary Science. We have endeavoured to stimulate the Veterinary Associations to use the columns of the *Record* for the publication of their proceedings with the idea of promoting by these means a more general understanding between all members of the profession throughout Canada.

It is a pleasure to recall the support received from some of the Provincial Associations, these have helped the *Record* in no small degree and enabled us to do our part last year. The Veterinary Association of Manitoba deserves especial mention. The practitioners of this Association subscribed in a body toward the *Record* thereby rendering it

easier to improve on our preceding issues. Added to these, and not least, is the interest exhibited in the *Record* by members of the profession in the United States. From our *confreres* to the South the subscription list has increased yearly, indicative of a renewed interest in the profession in Canada, and in many cases the country of their *Alma Mater*.

We are glad to be able to announce that the *Record* has financed its way since its commencement and no liabilities have been incurred, also the management of the paper are carrying on in the earnest hope that the date is not far distant when the number of issues will be increased and the *Record* appear more frequently than has yet been possible. Therefore, with that as our ideal it behooves us to redouble our efforts to add to the list of subscribers. Could the *Record* be assured of the future, financially, all other difficulties attending its production would seem trivial in comparison.

Louis Pasteur

The celebration of the hundredth anniversary of the birth of Louis Pasteur has just been fittingly commemorated by all civilized countries of the world with the exception of, perhaps, Germany, although,in that country, many must admit the greatness of his achievements. Louis Pasteur was no mere abstract man of science, he was a patriot. During 1848, he joined the National Guard of Paris, and later in 1870, marched with the army to fight Germany, while his aged father, who has seen service under Napoleon, and had won the Cross of the Legion of Honor for bravery, wept that he was not able to accompany him.

It was after the German bombardment of Paris, in 1871, that Pasteur returned many decorations conferred upon him by that country, and it is probably this fact that Germany has not forgotten.

In the minds of the average man, Pasteur's name is most intimately associated with the discovery of the emulsion which prevented the development of rabies following bites of rabid animals. In this dread disease, the mortality had always been high. Even under the best medical care, from twenty to forty per cent of all cases were fatal, and where the bites were in the region of the head, the death rate was still higher. Pasteur's treatment was received with the greatest enthusiasm, not only by the general public, but by medical and veterinary men as well. At that period it was a great discovery, and followed closely upon Jenners' vaccination for the prevention of smallpox. Methods for the prevention of cholera, diphtheria, typhoid and yellow fever were of a much later date.

It may be of interest to record that the first human case which Pasteur ventured to treat was an Alsacian boy named Joseph Meister, in July, 1885. He had been badly bitten about the face and hands by a rabid dog, and had received no medical treatment whatsoever. Pasteur and his assistants decided, that from the nature of his wounds, it was practically certain that he would develop rabies, if he were not treated. No failure of an attempted cure could be worse that the crisis facing the boy if not inoculated. He was, therefore, unhesitatingly given the treatment. No unfavourable results followed, and the boy remained well, and as far as is known, lived to be an old man. Three months following in October 1885, Pasteur announced his accomplishment to the Academy of Science in Paris. As soon as Pasteur's paper was published, the knowledge of his success became known in every country, and people who had been bitten by rabid dogs commenced to arrive from all parts of the world. The first case on this continent was in November 1885, when four children of workmen in Newark, N. J., were bitten by a rabid dog. There was no Pasteur treatment in the country, and little was known of its administration. The story was widely circulated in the press, and the New York Herald provided a fund for sending the children to Paris for treatment. The children were sent in charge of a Boston Veterinarian named Dr. Frank Billings and accompanying them was also Dr. H. M. Biggs who was at that time in charge of the Carnegie Laboratory.

Among Pasteur's greatest contributions to biological science were his studies in decomposition of organic substances due to micro-organisms. These gave Lister the clue he sought in asepsis and made modern surgery possible. His investigations upon the cause of putrefaction in beer, and the souring of wine, also the remedy for the blights that threatened to destroy the silk industries of France, have resulted in untold benefits to those enterprises.

The lives of thousands of cattle have been saved through Pasteur's protective vaccines against anthrax, by the discovery that attenuated spores of anthrax inoculated into susceptible animals, would confer an immunity against a virulent attack.

These discoveries are only a few with which the name of this great scientist is associated. Seldom has any great work been so richly rewarded.

As Stephen Paget writes in his biography of Pasteur: "It is not possible to measure or to put into words, the value of Pasteur's work, and the range of his influence. All attempts to estimate or to explain him are mere foolishness."

An Example of the Need for Co-operation Between Medical Men and Veterinarians

Science has been showing again and again the need for closer understanding between medical men and veterinarians. There is a strict relation between the two and in many respects our sympathies are similar. Appearing in the current number of the *Record*, we print an article forwarded by Dr. Gordon Bell, Professor of Bacteriology, of the Faculty of Medicine at the University of Manitoba on the *Serum Treatment of Glanders in man.* Glanders infection in man is fortunately uncommon, although at odd times cases have been recorded in this country, the majority of which have ended fatally. Dr. Bell has always shown the greatest interest in many of the problems affecting the veterinary profession, and is very familiar with comparative pathology. The significant fact of Dr. Bell discussing the case with the Veterinary-Director-General and the Chief Animal Pathologist and the subsequent use of immune serum from the Biological Laboratory, Ottawa, resulted in saving the lives of two valuable citizens.

Tempora mutantur, nos et mutamur in illis

In the February number of *Veterinary Medicine* there appears a full page advertisement of a college of chiropractics. It is not our intention to try and establish a code of ethics for veterinary journals, which like ourselves, are dependent on sale of advertising space to carry part of cost of publication. At the same time we think that in this particular instance an affront is being offered to the medical profession.

We have received in a friendly spirit the criticisms of *Veterinary Medicine* at the time the *Record* first made its appearance. We have in mind the critical editorial which appeared in the June, 1920, number of *Veterinary Medicine* entitled "A new Veterinary Journal appears." What a wonderful thing is consistency.

License Commissioners Confer with Ontario Veterinary Association

At the invitation of the Board of License Commissioners of Ontario, a committee from the Ontario Veterinary Association discussed with the Commissioners, the quantities of liquor being demanded by Veterinary Surgeons practising in the Province.

The Commissioners state that the amount of liquor requisitioned by some veterinary surgeons, leads them to believe that it is being used

for beverage purposes. Similar meetings have been arranged with the Ontario Medical Association and the results obtained, we understand, have been very satisfactory.

The action taken by the License Commissioners in conferring with the Ontario Veterinary Association in this matter, is to be commended and will be endorsed by all right thinking members of the profession.

The *Record* maintains that veterinary surgeons holding status in the community should be Members in their Veterinary Association, and admitting this fact the Ontario Veterinary Association can be relied upon to uphold the status and dignity of the profession, in whatever measure they advise or advocate to the Ontario License Commission.

*An Economic Comparison of the Horse Vs. Motor

H. L. HARE, University of British Columbia, B.C.

Although I have had opportunity during the past few years to investigate several economic problems on livestock farms in British Columbia, a direct economic comparison, as named in this paper has not been included in these investigations.

Of the two competing factors this Association is primarily interested in the horse. By instinct your members are attached to horses, and training in regard to horses has been featured in Veterinary Colleges. Hence it is little reason that your association is keenly interested in the by-play in connection with horses that has transpired during the last two hundred years.

The steam locomotive was an invention that first tread on the trespass of the horse. This invention made possible the wonderful trade expansion that has been developed since the earlier days. Many predicted that there would be a reduction in the numbers of horses used due to the advent of railways. Changes in the country's economic system were necessary to bring the Railway train into service. To be operated with success the railroads had to receive products for transport. In the growth and manufacture of these products, horses were used so that the stage coach horses, supplanted largely by the railroads, were superseded by the horse that would do farm work and transport work in towns and cities. Railways made industry possible in much of this country, that could not have conducted a similar business with the old form of transport. Instead of decreasing the number of horses used in this country the railroads made possible their increase as statistics prove.

*An address delivered before The North Western Veterinary Association.

The horse entered a real competition, however, when the automobile and motor entered the field. Advertising on the part of the manufacturers of motor vehicles and tractors appealed to the public in many ways. Another great factor was the natural desire for the novel and new. The war followed with a period in which money was easier. Many men were called to arms, large numbers of horses were bought for army use, and horse feed was expensive. Motor vehicles and tractors were heralded as a means to easily overcome the shortage of men and horses. The manufacturers took advantage of this. The result of the whole was that in the cities many firms adopted motor trucks and in the country many farmers loaded themselves with tractors. The peak of this movement was reached in 1918. Since that time the novelty of the motor transport and tractor has been waning, and we find that each year since 1918 the horse has won back territory in city and county because of the greater economy of operation.

Rest assured, however, the motor interests are not asleep. Catchy advertising still is used. Mr. Wayne Dinsmore, Secretary of the Horse Association states that the Tractor manufacturers are sending to their agents excellent aids for selling, suggesting that they sell tractors to farmers as agricultural implements rather than as tractors and that they be sold as a supplement to horses and not as a supplanter of them. The manufacturers state that the moment an agent tells the farmer that the truck or tractor will do away with the horse he simply builds up sales resistance. Equally good methods of making motor transport appeal to the business man of the city are being used. To offset this one firm in Winnipeg have hung up a sign—Truck Salesmen—"Remember the winter of 1918" During the past two years an endeavor has been made on the part of business men, farmers and colleges to get statistics in regard to horse versus motor transport. The result of the investigations has been that both motor vehicles and tractors make for success as well as failure, depending upon the class of work at which they are placed and the management of the same.

Trucks versus Horse Drawn Vehicles

The Pacific coast cities offer possibly the most favorable comparison for trucks in comparison with Horse drawn vehicles, due to the light snowfall. Figures from one of the leading transfer companies are here offered for the year 1920 when feed prices were particularly high, when money and business were easier and which the company states was the best year in its history.

	Cost of Operation per day	Average Daily Return
Team and dray	$11.02	$14.14
Ford Truck	11.61	14.08
3-ton "Giant" Truck	22.50	31.76

The cost of operation of the trucks as given is low, due to the fact that this Company operate their own repair shop. These figures show more gain per outfit with the trucks but it must be borne in mind that each of these equipments worked in their own zones, the horses being used on short hauls, while the motor operated on long hauls. They state that the haul must exceed three miles to use the auto to advantage. According to their statement the figures as given are far more favorable for the auto truck than later years, as the feed prices for 1920 were particularly high indeed while gasoline was only a few cents higher than present prices. On a straight comparison within the three mile hauls this company has found that in eight hours they can move as much or more tonnage with a team. This company has found that horses can do 90% of their total transfer work to advantage.

The largest milk delivery firm in Vancouver has found that the cost of operation of the motor delivery comes so high that at the earliest possible moment they will open distributing centres in the outlying districts so that horse delivery may be used altogether. In this business, horse drawn equipment works to advantage where patrons are within four miles of the distributing centre.

A Vancouver dry goods firm mention the advertising value of horse delivery. They use both motors and horses and state that the horses deliver parcels much cheaper within three miles, and they place the advertising value of an attractive team of horses weighing about 1,050 lbs. each with wagon, at $1,000. per year.

An address given by Mr. I. M. Winslow of Winnipeg before the "Storage and Warehouse Convention" last year at Calgary states, that the manager of one of the largest wholesale firms in Winnipeg put six motor trucks and six teams, and lorries on exactly the same work, and under the same working conditions, for a period of four months. The result was that the motor truck did 25% more work than the teams, but the cost of operation of the trucks was 73% greater. In arriving at these comparisons the following items were considered.

Horses and Harness	*Versus*	Chassis
Lorries	*Versus*	Truck bodies
Stable	*Versus*	Garage
Feed	*Versus*	Gasoline and Oil
Horse-shoeing, repairs and Veterinary service	*Versus*	Truck repairs
Depreciation	*Versus*	Depreciation
Interest	*Versus*	Interest
Wages	*Versus*	Wages
Revenue	*Versus*	Revenue

As the length of haul and road conditions in Winnipeg are more favorable to motor trucks than in most cities of Western Canada, the figures are quite striking.

The manager of one of the largest cartage companies of Montreal says that four years ago they sold all their horses replacing them with motor trucks. After running these trucks for two years, those which could not be sold were scrapped. They find that it is necessary to keep a few trucks for clients who can pay high prices. This firm found that it took the profit of six teams to balance the loss on each truck. They have demonstrated to their satisfaction that a team outfit costing around $1,000. and handled by one man will make as many trips per day on the average and earn as much money as the truck costing around $5,000 and $6,000. with a crew of two men. This firm computed the cost of operating a heavy team lorry, including wage of man, at $4.00 per day, as being $10. per day. The operation of a motor truck on the same basis with a very considerable amount of time off in the repair shop, cost $25. per day.

Mr. Wayne Dinsmore, secretary of the American Horse Association has gathered from all parts of Canada and the United States testimony from transport people in practically every line of business. Without exception these are to the effect that the horse has, and is at the present time, giving the cheapest form of power that has been, or is available, within the horse zone. This horse zone varies with the different firms from a three to twenty mile haul. The horse equipment has won on its merits, because of:

(1) The comparatively small investment.
(2) The long economic life.
(3) The small repair cost.
(4) Minimum expense in maintenance.
(5) Low depreciation.
(6) Ease of adjustment into large or small power units.

Tractors and Trucks on the Farm

Farm tractors have been used with some degree of success, but speaking generally they have not been a success with the average farmer. The Ontario Agricultural College, after investigations had been conducted, found that a tractor in the hands of an expert pays on an average farm of one hundred acres. In the hands of any but an expert it does not pay under any circumstances. A saving of $120. per acre is effected by substituting a tractor for horses and about 15% more land is cultivated. 2½ horses are replaced by a 12/24 h.p. tractor.

This report states that the reduction in the number of horses replaced is not so large as might be expected, practically no horses having been disposed of, except those kept for use at the time of peak load on the farm in the spring.

Professor O. G. Lloyd, Chief of Farm Management Department, Purdue Agricultural Experiment Station, Indiana, in his address to the "Indiana Draft Horse Breeders' Association" at their 1922 meeting states that "It is not merely a question of comparative costs of doing any particular piece of work. It is a question of profits accruing at the end of each year.

"The difficulty is in getting a fair comparison between farms using tractors and farms using horses exclusively. The operators in each group must have equal ability and equal opportunity to farm efficiently or the profit or loss due to tractor cannot be measured."

"It will require at least five years study to determine if the conditions are comparable and to determine if the results are significant.

"Our 1919 studies in Indiana on seventy-four farms, half of which had tractors the others using horses only disclosed that farms depending exclusively on horses for motive power made more than $900 per farm above those which used tractors.

In 1920 the difference was more than $800. And was again in favour of farms using horses exclusively.

"The difference in profits cannot be attributed as a direct cost of tractor labor above horse labor. Each tractor displaced approximately two horses. The power cost of these two horses was nearly as large a direct cost as the tractor, but the farm organization where tractors were used showed that less live stock was kept per 10 crop acres, that the quality of the live stock was not so good and the crop yields not so high as on farms using horses exclusively. Was the tractor responsible in any large way for the difference in profits in the two groups? The farms were approximately of the same size in each group, and the land valuation per acre was approximately the same. All farms were taken in the same community. If farmers of equal ability and equal opportunity were operating both groups of farms, then the difference in profits is truly significant."

The Dominion Experimental Farm at Prince Edward Island gives some interesting figures on the cost of plowing:—

Team of 3 horses per acre	$1.02
Team of 2 horses per acre	1.70
Gas tractor per acre	2.10

Statistics of the Province of Manitoba show that during the years 1914 to 1919, 33,000 tractors valued at twenty-one million dollars, were purchased by farmers. Comparatively little prairie land was plowed with tractors last year, which shows that these tractors are not being replaced when worn out.

In regard to trucks on the farm I quote the experience of Mr. C. S. Noble, Manager of a 30,000 acre ranch in Alberta, where he had to haul grain twenty to thirty miles to an elevator.

During 1918 and 1919, 3½ ton trucks were used, each truck hauling four to five tons.

Horses were used at the same time and even on this long haul Mr. Noble states that freighting can be done more economically with horses.

A report of a survey completed this year by the U.S. Dept. of Agriculture of 354 wheat farms in Oklohoma, Kansas and Nebraska, where tractors were used, has just come to hand. The analysis of the

cost per acre of power and man labour for different operations when done by tractors and horses, gave the following averages:

Plowing Spring and Fall with tractors	$1.99	per acre
Plowing Spring and Fall with horses	1.88	" "
Listing with tractors	1.10	" "
Listing with horses	1.03	" "
Disking (Tandem disk) with tractors	.91	" "
Disking (Tandem disk) with horses	1.05	" "
Drilling with tractors	.68	" "
Drilling with horses	.52	" "
Drawing binders with tractor	.87	" "
Drawing binders with horses	.56	" "

This report is summarized in the following words. "The cost of power on tractor farms in the winter wheat belt is somewhat greater than when horses were used for all the work. A preliminary report just issued shows, however, that 75% of the tractor owners were of the opinion that their tractors were proving profitable.

Human nature is such that we hesitate to acknowledge a poor investment. These farmers are no exception to this rule. Many tractor and truck users have not worked out their costs of motive power, and do not know whether the form of motive power they are using is profitable or otherwise. They should be encouraged to determine these costs and when this is done the horse will appear to them in the proper light.

A farmer must have horses for a considerable amount of his work. When trucks are used, too often the horses are idle thus causing a loss of available power. The great advantage that horses have in farm work lies in the fact that they are produced on the farm at cost; their fuel, in the form of hay, and grain, is raised and fed at cost, they are usable in two, four, six, eight, and ten horse teams, as the job requires, are self-repairing, long lived, and saleable when six or seven years of age to buyers for city work or to farmers who do not produce their own horse replacements.

I have tried to deal with this subject in an impartial way and have based this paper on the experience of farmers and business men all over Canada, and the United States, who have used both forms of power and transport.

Motor vehicles and tractors have undoubtedly given much satisfaction in certain work and under certain management, but within the horse zone in the city, and on the average farm the horse is distinctly the most economical form of power. The pendulum has swung from the motor back to the horse.

The question of the moment is to supply the horses of the type desired and in numbers sufficient to meet the demand, as many motors now in use are being laid aside. These motors must be replaced by horses and young horses must take the place of old ones now in use.

Horses are being imported to Vancouver from Ontario and one firm here states that it is indeed difficult to get the kind and number needed.

The city is calling for young horses of 1800 lbs. and over. Prices ranging from $600 to $1,200 are being offered for teams. Plenty of scrubs, particularly of the lighter types of horses are available.

We need more horsemen who are interested in the future welfare of the horse and who are ready to encourage any scheme that will ultimately tend to the production of more, better bred and better fed horses.

The Veterinarian practising in rural districts can do much to encourage farmers to use good mares and to mate these with horses of the desired size and type.

The feeding and care of the colts must be given every attention if heavy draft horses such as will command a good price are to get to the market.

The American Horse Association have circulars for distribution. The City veterinarian should have a supply of these to place in the hands of motor truck users, who may still be unaware of the losses they are taking, due to the uneconomical method of transport they may be using.

During the war many horses got out of the paddock. The call for greater production was patriotically responded to. Trucks and tractors helped to provide the extra motive power needed. Greater production was achieved but at the expense of economy. Now that the war is over Efficiency and Economy are the slogans and we find that horses are fast coming back to their field.

Andrew Smith Memorial Fund

Receipts.

Nov. 5th, 1922	Total subscriptions	$760.55
" " "	Canadian Exchange	22.33
" " "	Interest on bonds	37.12
" " "	Bank interest	4.62
		$824.62

Disbursements.

Nov. 7th, 1921	Three Victory Bonds ($100)	$291.72
Jan. 10th, 1922	Five Victory Bonds, (one $100 and four $50 bonds)	299.56
May 1st, 1922	One Victory Bond ($100)	100.00
Sept. 19th, 1922	One Victory Bond ($50)	51.06
" " "	Dr. Merillat's expenses	41.00
" " "	Bank balance	41.28
		$824.62

The Removal of the Cattle Embargo

Canadian Store Cattle for Great Britain

We are fortunate in being able to favour the readers of the *Record* with a resume of the Act which is to govern the importation of "store" cattle into Great Britain. The subject of the removal of the embargo, is not only of especial interest to the profession, but has an important bearing on the economic life of Canada, particularly as regards live-stock interests.

The new Act, namely: "The Importation of Animals Act, December 1922," has been published in Great Britain, and only awaits promulgation before automatically coming into effect. The provisions and working of the Act were discussed in special committee at Ottawa last month, at which all immediately interested parties were present. The meeting was called on the invitation of the Minister of Agriculture and held in the Deputy's Office. Among those present at the meeting were stockmen, leading breeders, railway and shipping officials together with the Veterinary-Director-General and the Live Stock Commissioner. The officials of the Health of Animals Branch of the Federal Government will play an important part in the administration of the conditions of this Act from the point of view of fulfilling the stipulations imposed by the British authorities.

Summarized hereunder are the provisions, by which, "store" cattle will be admitted into Great Britain, and the following are the chief points we draw attention to:

I. Immediately before shipment the animals must be kept separate from all other animals for three clear days, and be examined from time to time during that period by Inspectors of the Health of Animals Branch, Department of Agriculture. No loss of time will be involved on long journeys, as the necessary three days will be occupied in transit. Cattle shipped from nearby districts such as Eastern Ontario or Quebec will perhaps be detained at Montreal or Toronto for the time under three days not occupied in transit.

II. All cattle thus examined and found free from disease, will be entitled to a final certificate of health on leaving the Canadian ports, and will be accompanied across the Atlantic by a veterinary inspector. The veterinary inspector will be expected to examine each individual animal daily during the trip, for signs of infectious diseases.

III. All cattle will be required before shipment, to be marked indelibly and in such manner as directed by the Veterinary-Director-General.

IV. Cattle must be shipped from a port in the Dominion of Canada and the vessel used for the voyage inspected by a representative of the

Dominion Government or the Government of Great Britain, and to be suitably and properly fitted and equipped for the humane treatment of cattle during the voyage, and the avoidance of unnecessary suffering during the voyage.

V. Cattle landing in Great Britain, will be detained at the landing place, and isolated for a short period sufficient to allow of thorough inspection by the Inspectors of the Ministry of the Department of Agriculture, when they may be forwarded on to their destination.

VI. In respect of landing imported animals, British Veterinary Inspectors will conduct examinations and may charge a fee of sixpence per head, to cover expenses of each examination.

VII. The expression "Canadian," in relation to any animal means, born and reared in the Dominion of Canada, and that "store" cattle means castrated male, and spayed female bovine animals intended for feeding purposes.

It has been emphasized that exporters will need to be impressed, that it is expedient to send only the best grades of cattle, so that the British authorities will have no cause to change, alter or modify the spirit or construction of the Act.

The exportation of breeding and fat stock, is subject to conditions which differ from the provisions of exportation of "store" cattle. These will be discussed at a later date and the details explained as soon as they have been arranged for publication.

War's Animal Victims

Westminster City Council, London, England, have sanctioned a proposal for the erection of a memorial in Hyde Park to all the animals that lost their lives in the war. More than £2,000 have been collected for the purpose by the Royal Society for the Prevention of Cruelty to Animals.

The animals to be commemorated range from mice and small birds used in the detection of poison gases to the elephants that were killed while on heavy transport duty.

There were 364,130 British horse casualties in the war. Dogs engaged for various purposes died in thousands.

New District Offices

With feelings akin to joy and satisfaction, although perhaps, mingled with regrets at having to say good-bye to old and historic surroundings, the District Office of the Health of Animals Branch, Toronto, will move into new spacious quarters at the Federal Building corner of Richmond and Sheppard Streets, Toronto, about May the 1st.

CASE AND CLINICAL REPORTS

Any case report considered interesting to members of the profession, please send it addressed to the Editor, Canadian Veterinary Record, 573 Keele Street, Toronto, Ontario, for publication under the above heading. Practitioners are invited to avail themselves of these columns. We desire more case reports in the Record.

New Treatment of Burns

Experiences of a Veterinary Surgeon in the Fire Area of Northern Ontario.

W. A. THOMPSON, B.V.Sc., Elmvale, Ont.

Shortly following first press reports of the great forest fire disaster in Northern Ontario, October 4th, 1922, I left for that area with full and complete line of drugs which I thought would be required. Immediately upon arrival, I proceeded to treat all injured animals I could find, and during my eight weeks in that part, I gained some experience with burns in all varying degrees of severity, more than perhaps befalls the average practitioner in a life time of general practice.

I will deal with the treatment of burns of the 2nd, 3rd and 4th degree graded according to severity. Burns of the second degree might be termed those where the burns had been severe enough to cause separation of the superficial from the deeper layer of the skin, the intervening space being filled with a serous exudate. Burns of the 3rd degree are where the injured portion of the common integument and tissues immediately beneath, have been destroyed. In such cases as these, circulation to the part ceases to exist. There is excessive sloughing, and always danger from necrosis.

Treatment

In the manner of treatment, I was forced to resort to almost every known method, some treatment perhaps had never been heard of before. In all, 126 cases of burns were treated in stages of 2nd, 3rd and 4th degree. Eighty-eight of these were on the larger animals, horses and oxen.

Among the many preparations used might be mentioned:–

1st. *Carron Oil.*

2nd. *Whiting, with the addition of antiseptics such as phenol, creolin, etc.*, and made into a paste.

This was applied repeatedly until a suitable coat was formed.

3rd. *Saturated aquaeous solution of sodii bicarbonate.*

4th. *Mixtures of various oils with boric acid, sodii salicylate, phenol, sodii bicarbonate, etc.*

5th. In one or two cases the *fluff of flags or cat-tails* was used, mixed into lard to which a few drops of some antiseptic was added.

6th. *Compressed yeast (Fleischmanns).*

7th. *Parrasene wax (Abbott).*

8th. *Parro-wax (Imperial Oil).*

I found that if I could get treatment to burns which were still fresh or before infection had taken place, the application of Parrasene wax (Abbotts) made a most satisfactory application, applied as follows: Melt wax and allow to cool to point just a little above the minimum temperature at which solidification takes place. Apply liquid wax with soft brush, do not use sponge or cloth. Follow application with layer of absorbent cotton. Brush on more wax, then apply more cotton, and so on, until you get a coating of wax and cotton at least $\frac{1}{2}$ to $\frac{3}{4}$ inch thick. Then with wax heated a little above melting point, fasten the edges down securely. Leave this dressing on the wound from 3 to 4 days, providing it will remain in close union to the affected parts. This treatment is very satisfactory on recent burns if applied before infection has set in, although it was noticed that the dressings had a marked tendency to imprison all wound or natural drainage which usually results from burn wounds. Where free drainage was not obtained, such cases gave trouble later on.

Parra-Wax or common paraffin, I found the melting point too high, and that it cooled too quickly. In my hands it was unsatisfactory and not to be compared with the Abbott product, for the purpose used.

Fleischmann's yeast. My experience with Fleischmann's yeast was highly satisfactory. I used the one pound cakes supplied to bakers. It was made into a heavy cream by adding luke-warm (not hot) water. No antiseptics were added as these would destroy the action of the yeast ferments. The paste was applied directly to the area involved, and covered with gauze or cotton. The edges of the dressing fastened down with wax as before described. This was left in place from 72 to 144 hours, although it was found best to remove in from 72 to 96 hours. Upon removing the dressings, it was found that they had a decided yeasty or putrefactive odor, but washing and cleansing the part with a solution of mag. sulph. IV ounces added to two gallons of warm water dispelled the odor, leaving the new clean, pink colored flesh. Healing follows rapidly with the formation of healthy granulations extending from the edges of the wounds. I also used second and third applications of yeast immediately following the first or second dressings, and

found this of value in burns of 4th degree, where the destruction of tissue was extensive. Owing to the adverse conditions experienced during my stay, I was unable to keep records of all treatments tried, and valuable data which I would like to have collected was lost. If in the future I am called upon again to treat burns, my treatment will range as follows: 1st. Parasene wax on burns of recent origin, or those involving small areas. 2nd. Neglected burns of some hours standing— I shall resort to Fleischmann's yeast. 3rd. I shall in all cases, if possible, follow up wax treatments with one or two applications of yeast, as I am well satisfied that it hastens the healing process by days, and in addition does not leave so much unsightly scar tissue as seen where oily dressings were used.

For final dressings, I have obtained best results following the use of this powder:–

Corn starch	8 parts
Sodii bicarb	8 parts
Acid Boric	4 parts
Acid Salicylic	1 part
Carbolic Acid	1 part

To the above add five per cent iodoform, and use freely. If wounds are large and occur during fly time, a few drops of formalin should be added. This repels flies, most effectively. As healing increases, paint edges of wound with a mixture of:–

Olium cajiputi	4 parts
Tinc. Iodine	1 part
Olium Olivae	4 parts

In cattle, especially milch cows which have travelled over recently burnt areas, it was found in nearly every case, that the teats and udders of these animals exhibited bad burns even though they had otherwise escaped. In some cases the ends of the teats alone were burnt. These I treated with:–

Tinc. Benzoin Co	aa Pæ
Glycerine	

This mixture is applied freely twice daily, after removing the milk with teat syphon, where and when necessary. I also found this formula very beneficial for burns around feet and head of both horses and cattle. For burns on swine, I prefer liberal applications of carron oil, followed by frequent washing or sprayings of creolin solution, and if possible applications of the dusting powder mentioned before. With sheep, 99 per-cent of cases treated died within a few days. I do not think it possible to obtain good results following treatment of burns on sheep. The same applies to cats, whilst dogs respond nicely to applications of the benzoin and glycerine applications.

Special mention should be made of animals gassed by smoke. Irritation to nasal and pulmonary mucous membranes and a great

deal of dry coughs were noticeable. These cases responded nicely to a mixture of:–

Oleum lini	one quart
Theriaca	half pint.
Glycyrrhizæ radix,	eight ounces
Creosotum, (beechwood)	one ounce
Fiat. elect., Sig:	one to two ounces T.i.d.

The subject is one of great magnitude of which much could be written, although it is doubtful whether the average practitioner would be ever called upon to study with the same seriousness as other common and more familiar accidents.

However, fires do occur, even in the best of regulated farms and stables, and in the event of animals requiring our aid, we should at least be in a position to prescribe a fairly comprehensive line of treatment.

The article was written at the request of the Editor, who thought that the subject would be of interest to practitioners

Comminuted and Complicated Fracture of the Tuberosity of the Ischium

J. G. HARVEY, Guelph, Ont.

One noon last summer I received a call seven miles out (fourteen by detours). On arrival I found an aged chestnut gelding in a grass field, down, kicking, attempting to roll and showing colicky pains. Temperature 102° F., pulse accelerated, breathing about normal, peristalsis present, very little signs of flatulence.

The owner stated he had driven the horse in the morning and he appeared normal, but after he fed at noon seemed in pain, so he took him out of the stable. Then the horse lay down and had not since risen to his feet, although he made several attempts to do so. The owner had administered a drench of soda and ginger, and thought the horse seemed easier.

I was puzzled as to giving an exact diagnosis but administered a drench as follows:

Spts. Amm. Aromat.		
Spts. Ether Nit.	aa	Ounces 1
Fl. Ext. Belladonna		Drachms 1
Aquae q.s.		Pints 1

This was repeated in thirty minutes. The horse now showed very little signs of pain, so was forced to rise. When on his feet he staggered and I noticed him lame on the off hind leg. On closer examination I found the region to the right of, and slightly below the tail head badly swollen and painful.

On further questioning the owner, he said that three days before the horse had fallen on the pavement but got up at once and he had not noticed any lameness. The horse now walked to the stable and as he showed very little uneasiness was placed in a box stall. I now left with instructions to apply hot fomentations to the swollen parts and to telephone me by six o'clock.

I arrived home at six-thirty to find the owner had sent word that the horse appeared about the same and thought the swelling was going down. However, at eight o'clock he telephoned that the horse was again in pain, was down and kicking violently, and to come back at once.

On getting on the scene this time I found the horse dead and already removed outside. I set about to hold a post-mortem (by lantern light) and found a comminuted fracture of the tuberosity of the ischium, a small portion of the splintered bone having penetrated the tissues as far as the obturator artery, lacerating the same, hemorrhage resulting, the blood being in the surrounding tissues. The internal organs appeared normal, death apparently resulting from the hemorrhage.

What I am not satisfied about in my own mind is—Did the horse have any digestive disturbance, and if so in rolling about cause the separation of an already fractured bone? Or did all the symptoms arise from the pain due to the fracture, etc., and should the fracture have been diagnosed on ante-mortem examination?

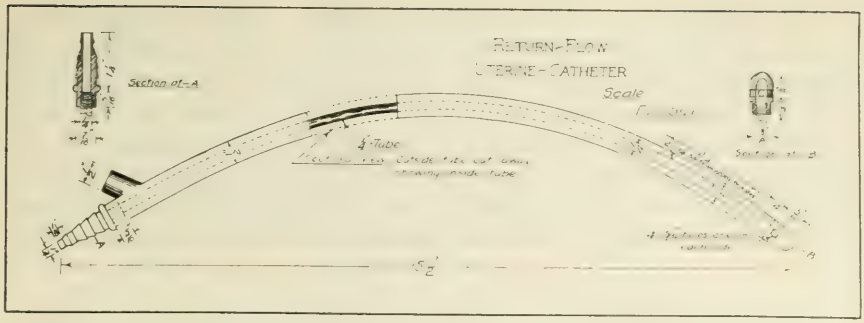
Two New Uterine Catheters

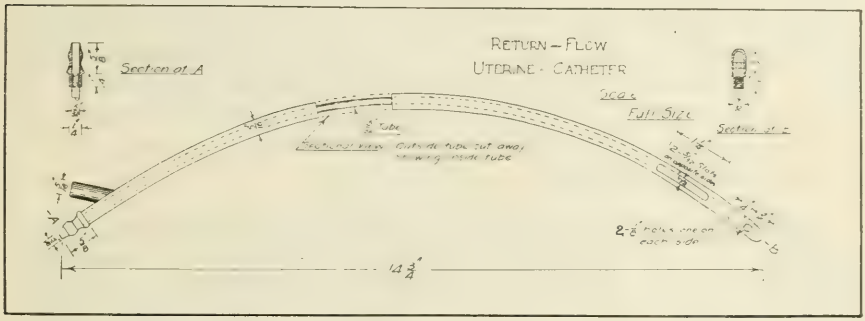
ALFRED SAVAGE, B.S.A., M.D.V., Winnipeg, Canada.

Retraction of the bovine cervix is usually not a difficult procedure when the patient belongs to one of the dairy breeds. In many instances one may draw the part a few inches beyond the vulva without effort. This is rarely the case, however, with animals of certain beef breeds, notably Shorthorns. Indeed, where some of these are concerned, the amount of retraction which may be secured is annoyingly small, especially when one is dealing with sterility cases.

Under these conditions I have been unable to thoroughly douche the entire length of the uterine horns with the usual form of catheter. The intromittent or working portion is too short. In an attempt to devise something better, I had two special catheters made, a reduced working drawing of which is shown herewith.

They are about 15 inches long each, made of nickeled brass and fairly well curved. One is ½" in diameter, the other 5/16". The fact that the entrance to the return flow tube is separated from the nozzle insures a certain amount of "positive feed." They disassemble





for cleaning by unscrewing the head. On the larger one the intake is shaped to accommodate rubber tubing of any size between $\frac{1}{4}$" and the usual horse stomach tube.

These instruments have proved extremely useful. It will be noticed that almost their entire length can be passed through the cervix without blocking the return flow. By attaching a rubber tube to the outlet, one may safely insert the whole instrument well beyond the vulvar opening, use what solutions he pleases on the uterine mucosa and be satisfied that they will not come in contact with the vagina.

Messrs. Stevens and Sons, of Winnipeg, had the originals made for me by the Sklar Co., New York City.

Impaction of Colon

P. K. WALTERS, V.S., Thorndale, Ontario

This is quite common in the late fall and early winter due to owners allowing horses to run out in the day time, where they have access to straw stacks and frozen grass. It is also common amongst horses that are still receiving heavy rations of hay and grain, though doing much less work.

My experience with these cases, especially since practising in this district, has led me to believe that the above are the most common causes of impaction of the colon. Horses coming in off the grass in the fall when put on dry feed and given very little exercise are likely to get impaction and indigestion. Farmers will not reduce the rations, and naturally from want of proper exercise, the secretions of the different organs become sluggish. Veterinarians can quite understand why there are so many cases of alimentary troubles at this time of the year.

The medicinal treatment of these cases is usually very unsatisfactory, in fact, I have found it impossible, in some, owing to the colon being impacted with solid undigested food. I believe that the colon becomes paralysed, and that is why medicine, especially cathartics, is of very little use. The owner may state that he has given oil (as much as three quarts in twenty-four hours). Cathartics, either mild or drastic, seem to do more harm than good, and cause the patient a lot of uneasiness and suffering.

Symptoms: Horse when down shows very little pain. Pulse weak and very irregular. Temperature normal in most cases. Extremities cold. Patient when made to rise, will show stiffness and the back will be slightly arched. Breathing seems nearly normal, though on moving, the patient will sigh, owing to pressure of gas. Pupils are dilated showing distress. Visible mucous membranes are yellowish. Mouth is dry or slimy, and an offensive odor is noted. Auscultation over the abdominal region will reveal no peristalsis, but a tympanitic or tinkling sound may be heard. Horse, when on its feet, will show a tendency to back. Rectal examination will show no feces in the back bowel, but farther forward an impacted mass will be felt. (In one of my cases this mass was the size of a man's body). Sometimes just before death where cathartics have been used, the animal strains violently.

Prognosis in these cases is very grave. Owner seems to think that the horse is not very sick because it is quiet, and I was of the same opinion when I commenced to practise. I have given a physic, expecting to hear that the case was doing well, only to find next day that the animal was worse, death following in from sixty-four to eighty hours.

Treatment:—In such cases as these in my practice drastic cathartics ——arecolin, aloes, eserin, etc., have nearly always proved fatal. I have had a little success with stimulants such as strychnine, carbonate of ammonia, nux vomica and salicylate of soda, in large doses. Rectal

injections are useless. If the injection happens to reach the mass it will not break it away. Medicine will not pass through it.

Post Mortem: The stomach is distended with fluid and gas. No solids are there. The odor is sour and offensive. No solid food will be found in the small intestines. Slight patches of inflammation will be noted, also the medicines, especially if oil has been given. In the curvatures of the large colon in some cases, both sternal and dorsal, a hard dry mass is found. No medicine could ever pass through it owing to the paralysis and inflammation.

I have had four deaths lately from impaction of the colon and held post mortem examination on three of them which revealed the above mentioned conditions. Though using everything—cathartics, intestinal stimulants, and rectal injections—medicinal treatment seems to be of no avail.

Teratomata (Cryptorchid)

R. G. CHASMAR, V.S., Hanley, Sask.

The name *Teratomata* is derived from the Greek "Teras," wonder. Teratomata may be defined as congenital tissue malformation, one of the best examples being the so-called Dermoid cyst, which is a well defined tumor like, cystic structure, lined by a skin like membrane which may have cutaneous appendages such as hair, wool or sebaceous glands. Dermoid cysts occur in any part of the body, such as beneath the skin or in the ovary or testicle. The Dermoid cyst of the ovary or testicle often contain teeth more or less perfect, bone and cartilage, and occasionally pieces of nerves, muscles and even parts of intestinal structure.

Origin:—It has been suggested that Dermoid cysts arise from the late activity of cells which are displaced during embryonic life.

The subject of this sketch being an eight year old horse of good type and conformation, and weighing around 1,500 pounds.

History:—This horse had been operated upon as a yearling, the

testicle on the left side removed. From this time on the general characteristics of cryptorchidy were developed and intensified with age. During the summer of 1920 the writer was requested to operate upon the animal in question, and the animal was cast and secured in the usual manner, the customary antisepsis which obtains in field surgery, i.e. application of Tr. Iodi both to hands and operative area carried out. Entering by the inguinal route, the vas deferens was grasped and traction applied but to our surprise the testicle could not be removed. A closer examination revealed an enormous mass, of a solid consistency, which admitted of no doubt as to what we had to deal with, and the decision to leave well enough alone was very quickly reached. The owner, who of course was an eye witness to the proceedings, was shown the "cord" etc, and after the probable outcome, if the operation were proceeded with, was explained, a tampon of iodoform gauze was placed well up in the canal, and the animal allowed to rise.

However the possibility of losing the animal did not deter the owner for very long. During the summer of 1922 I received a letter asking me to come and operate on this animal, and if he died as a result of the operation it would be alright anyway as the horse was no good to him the way he was.

On August 14th, 1922, we again visited this farm with all the instruments required, suture material etc., in a sterile container. No preparation such as restricted diet, catharsis, had been attempted. The animal was cast and secured, hooks well flexed, damp towels placed on foot and uppermost leg, inguinal region painted with Tr, Iodi, and complete anæsthesia obtained. The incision through the skin and subcutaneous tissues was made directly over the normal position of the scrotum, and by blunt dissection, with some difficulty owing to cicatricial tissue, the internal inguinal ring was reached, the vas deferens grasped and traction applied by an assistant. With the aid of a probe pointed bistoury, the ring was enlarged lengthwise and by an incision thru the abdominal muscles, we were enabled to remove an abnormality 7x7¾ x 11 inches and weighing 6¾ pounds. The intestines were exposed to view but there was no difficulty in retaining them whilst placing continuous suture to close the wound at the junction of the incisions. Tampons of iodoform gauze were placed close up to the ring, canal packed with gauze, scrotal wound closed with sutures, animal released, and was soon on his feet again. The tampons of gauze were removed after 24 hours and replaced with same dressing; this was repeated on the 3rd, 5th and 7th days following the operation.

The horse was turned into an enclosure where there was good feed and also exercise given daily . . . No un-toward symptoms developed

with the possible exception of a rise in temperature 102 during the time that I was in attendance, but I was informed by the owner that about one month later on going to the barn in the morning he found the animal cast and unable to rise, and that he died the following day. This I presume would be associated with a post operative abscess, presumably from the sutures placed in the internal inguinal ring.

On examination of the abnormality removed from this horse, we found the walls in places to be of the consistency of bone, partly formed molar teeth protruding in places, of a cartilaginous nature in spots, and evidence of contained fluid in the upper portion. The enclosed snap is fairly clear and I think sufficient to indicate that the diagnosis of "Teratomata" is correct.

Intussusception of Small Intestine in the Bovine

J. C. BROWN, V.S., B.V.Sc., Box 174, Burford, Ontario

This case was selected with the intention of encouraging others to contribute their experiences and methods of diagnosing a condition possibly more common among cattle than we imagine.

History:—A Holstein Friesian cow aged four years, in full flow, having been served three or four days previous to showing indications of sickness. Owner noticed one evening as he was feeding the herd that this particular animal was not anxious to feed, although she had not refused any food up to the evening meal. While milking was in progress, the cow was very restless. She would occasionally kick savagely at her belly, lie down at intervals, and upon rising continue her kicking and stepping around uneasily. Later these symptoms seemed to subside, but nevertheless the animal seemed unwell. Upon the following morning (Saturday) owner called upon the 'phone asking us to come down, as he had a sick cow.

Examination:—Upon examining the animal, the following conditions were found. Temperature 100° F.—Pulse 60 to 65, refusal of all food and water, expression of the eye indicated uneasiness, and pain. Ausculation over region of stomach and bowels was indefinite.

Palpation:—Indications of pain over region of rumen just anterior to stifle on left side. Crural muscles on same side trembling. Animal more inclined to lie down than stand. Respirations slightly increased.

Rectal Examination: Upon passing hand within the rectum a soft tenacious gelatinous mass was found. Upon withdrawing same for examination, the following characteristics were noted: The mass consisted of an accumulation of mucus, dark, resembling old extravasated blood, free from any fæcal matter. On passing the hand and arm once more into the bowel and palpating contents of the abdominal cavity, indications of peritonitis were found. This was com-

parable to the fingers being placed upon a thin sheet of paper with fluid beneath it, and animal evinced pain upon firm pressure. A further and more extensive search was made in the region of the mesentary, especially towards (as far as was possible to judge by sense of touch) its border and small intestine. The animal became very uneasy giving painful grunts and endeavouring to free herself from further manipulations of the parts.

Diagnosis:—Having found no indications of the recent passage of faeces, the rectal contents indicating by their consistency, and color, an inflammatory condition, existing well forward in the region of either the large or small bowel, from this together with the acute pain suffered by the animal, and this later subsiding, the case was diagnosed as Intussusception of the Small Intestine.

The temperature could not be relied upon with certainty, as we have found in cattle, that cases of inflammation of the stomach or bowels, after the initial stage has passed, one may get a temperature bordering on the normal or sub-normal. This is deceiving.

The pulse was increased and could be called full, which is taken as an indication of an inflammation being present.

The animal's tendency was to lie more than stand. Her attitude in the recumbent position was more on the belly with feet well under her, indicating that this position gave more ease and comfort with less tension in the region of affected organs.

Prognosis:—Hopeless.

Owner was advised to destroy her, as medicinal treatment would be useless, and that the only hope was surgical, which was considered questionable.

The owner said that should the animal be no better the next day (Sunday) he would destroy her. Upon hearing his decision, we offered to come down and hold a post mortem, if he would let us know when he was ready. The animal was destroyed, and a post mortem held.

Post Mortem Findings:—Upon opening the cadaver, our first condition met with was marked peritonitis. This became more intense, as we worked our way from the stomach towards the mesentery. Upon laying the viscera out carefully, we did not have much difficulty in locating the affected area. The seat of trouble was found in the region of the ileum. For a distance of some five inches the small bowel was invaginated upon itself and greatly inflamed and swollen. Upon gently pulling the extremities apart, and taking care not to rupture it, owing to the fibrous adhesions which were forming, we reached the seat of greatest pressure. This part could be compared to cream cheese in consistency. When the bowel was fully extended the part involved would measure altogether about nine inches in length.

Remarks:—Why we thought this note might be of interest to others is:—

1. The indefinite symptoms of serious conditions existing in the bovine, without the animal showing their presence early.
2. Our attempt to try and form a means of diagnosing the condition definitely during life.
3. To encourage others to write their experiences in practice, and assist their fellow practitioners in general by giving their methods for arriving at a correct diagnosis of the condition.
4. To show that a post mortem should be held whenever possible, that one may follow up symptoms shown by the animal in life, and thereby try and get definite reasons for them through the conditions found on post mortem.

Azoturea

A. J. MALMAS, V.S., Didsbury, Alta.

Also known as *albuminuria* and *haemoglobinurea*, belongs to the class of dietetic diseases, and is supposed to be due to a hypernitrogenous condition of the blood and system generally. Although this affection is of a comparatively common occurrence in horses, and the symptoms in the typical cases are perfectly familiar to the practising Veterinarian, yet little is definitely known with reference to its etiology and pathology, and much has yet to be learned in connection with its successful treatment. It is difficult to offer a definition of the malady, considering the diverse views which are held as to the etiological factors, and the manner in which they act on the various organs in which lesions are produced. From a clinical point of view the disease may be regarded as one depending on idleness, plus high feeding, to which must be added some unknown element. As we are well aware that many horses may be kept in the stable for variable periods, and fed as usual without developing the affection.

The period of rest essential for the disease to develop varies from one day upwards. Two or three days' rest is more likely to be followed by an attack of azoturea than a period of two or three months.

In ordinary cases excessive exertion does not appear to be necessary in order to bring about the affection, as the symptoms usually develop within a short time after the horse leaves the stable. While on the other hand, a case has been reported, where a horse got his foot entangled in the halter rope. It was believed that, owing to the severe exertion and straining of the muscles, the disease developed. This would lead one to believe that some horses were especially predisposed to the disease.

Symptoms: Of cases commonly met with in practice. The horse is brought out of the stable after having been well fed and rested for several days, animal is high spirited and apparently full of life. After travelling a short distance, it is observed to become somewhat dull and sluggish, perspire freely, go lame or show stiffness over the loins, nostrils dilated, trembling and unsteady gait. A dusky brown color of the membranes of the eye, is noticed while the breathing and pulse are accelerated. Urine highly colored, usually of a dark brown or coffee color. If lesions are local, affected muscles will feel hard and swollen.

Treatment Method which I usually adopt—Patient is taken to a comfortable stall, well bedded, if possible, and body well clothed. Catheter is passed and urine withdrawn. Enema of soap suds and warm water, (about two gallons) administered and all feces removed from rectum, applications of hot blankets combined with a hot stimulating liniment applied to affected muscles. Patient is allowed to drink water freely, laxative is given in form of a ball made up of the following: Aloes, Barb, pulv, drachmes six. Tinct., Zingiberis, drachmes four. Nux Vomica, drachmes two, Petrolatum, drachmes two. Sodii bicarb in four ounce doses is given every four hours until 1½ pounds has been given.

If the horse is very uneasy and restless, through pain, a sedative of Chloral Hydrate, ounces one, and Fl. Ext. Cannabis Indica drachmes four gives good results. In cases where you have a rise in temperature and a febrifuge is indicated Flem Tr. Aconite M. 20, every two hours proves very satisfactory for both temperature and pulse.

Horse Tail or Fox Tail Poisoning

R. W. DEVEREAU, V.S., Brantford, Ont.

During the winter of 1919 and 20 I had occasion to treat quite a number of horses, (to be exact 43 cases) suffering from the effects of eating horsetail in the hay. The majority of these cases were very severe, nine required putting in slings from one to three weeks, before recovery was effected. One case that was down when I got it, died and I also lost one other where I failed to get action from cathartic treatment. The rest made a very good recovery.

Symptoms:—A number of reports on this trouble state, that unthriftiness and wasting of the animal with diarrhoea are some of the prominent first symptoms. In the cases I had, instead of diarrhoea there was marked constipation in every case and nearly all the animals were in very good condition, except for a tucked up appearance due to the contraction of the muscles.

The first symptoms were generally seen when the animals were being led through the stable door. On coming to the opening the animal would stop, sway and stagger like a drunken man, become very much excited and very likely strike against the door frame before it got through the door way. It would then probably walk out to water and back all right and repeat the same performance on going through the doorway. These symptoms gradually increase and if treatment is not soon undertaken the animals go down and are unable to get up. The appetite stays good right up to the last or at least until the animal goes down. The pulse is slow and temperature normal or slightly subnormal until the animal is down, then they both run very high due to the excitement. Another prominent symptom is in the appearance of the eye, which is very bright and brassy due to the great dilatation of the pupil. Visible mucous membranes are very pale in color.

Treatment: The first step in treating these cases is to give a complete change of diet. Hay free from horsetail with lots of bran slop and mangolds, makes a very good feed. Put animal in good comfortable quarters and clothe very warm if the weather is cold, as a horse with this trouble seems to feel the cold very much. If animals have difficulty staying on their feet use slings. Some of these cases are very nervous, and I had great difficulty in getting a physic ball down some of them. A good thorough catharsis is the first step in the medicinal treatment, and as this is hard to establish do not be afraid to give a good sized aloetic ball. I used, aloes 10 drachms, calomel 1 drachm, pulv nux vomica 1 drachm, zingiber 1 drachm for one dose. In one case I failed to obtain action from the purgative in a 1,000 pound mare, and blamed loss to the fact that the ball did not establish catharsis. In the cases that were very excitable, I used lobeline sulphate hypodermics night and morning with good effect. Gave sodium sulphate in 2 to 4 ounce doses, three times daily in drinking water. After the effect of the physic had worked off I followed with sulphocarbolates (Abbott's) crushed in the food three times daily. Also half-ounce doses of liquor arsenicalis three times daily.

On farms where they have large quantities of horsetail in the hay every year and it is impossible not to feed it to horses I recommend giving two to four ounces of sodium sulphate night and morning. This seems to keep horses fed on this hay free from trouble. I have never observed any cases in cattle although I have seen them fed for months at a stretch on hay that was thick with horsetail weed.

Colonel R. L. Mundhenk of the Abbott Laboratories, paid a short visit to Toronto last month.

Rectal Examination Important

H. J. DAVIS, V.S., Aylmer West, Ont.

Patient:—Aged bay mare.

History:—Owner stated animal was suffering from colic, that it wanted to lie down most of the time, showed symptoms of pain at times, was off feed and had had no bowel movements that day up to the time of my arrival (evening).

I examined the animal and found temperature and pulse normal. No peristaltic movements could be heard.

Diagnosis:—Impaction.

Treatment:—This is where I learned a lesson. I had not been in the habit of regularly making rectal examination, but this time I did and now I always do if there has been no recent bowel movement. I passed my hand in about eight inches and felt an obstruction quite firm and large enough to close the opening in the rectum the floor of which it seemed to be attached to. Examination per vagina showed that the obstruction was above my hand. With extra asepsis I opened the abscess (as that is what I concluded it was) and a thin creamy liquid, with very little odor, flowed out. I made the opening about three inches long and cleaned it thoroughly with salt solution. Further examination revealed another abscess half as large as the first and just anterior to it. This was opened into the first one. After thoroughly cleansing, the walls were swabbed with Churchill's tincture of iodine. The feces which could be reached, an enormous quantity, were removed from the rectum, and about two gallons of soapy water injected. A quart of oil was given per orem.

The following day the animal was feeding well and the bowels were moving regularly. The abscess was syringed out, and instructions were left for this to be done daily for at least ten days.

This case occurred about a year and a half ago, and no further trouble has been noticed.

Metritis

H. J. DAVIS, V.S., Aylmer West, Ontario

Patient:—Pure bred Jersey cow appearing very sick.

Symptoms:—Temperature 104°F., pulse 94, respirations 28. Very disagreeable odor coming from the vagina.

I enquired when she had freshened and if she had cleaned properly, and was informed that she had calved four days previously and that Mr.....had cleaned her two days later.

Diagnosis: Metritis.

Treatment: I made an examination and found the os uteri nearly closed. Examination per rectum revealed a flabby, swollen uterus

filled with liquid. I gently massaged the uterus pressing out the fluid which was dark and foul smelling. Two one ounce capsules of boracic acid powder were inserted into the organ. (I have found it bad practice to inject any liquid into a badly infected uterus. I think it spreads the infection to the whole organ, making matters worse.) A tonic of nux vomica, iron sulphate and potassium nitrate was left to be given every four hours, and instructions were given that the cow was to be allowed all she would eat and drink.

The condition was much the same on the second day and the same treatment was repeated.

On the third day the cow looked a little brighter. Temperature was 103° F. Treatment as before.

There was a marked improvement on the fifth day. The temperature and pulse were about normal, and the animal appeared quite hungry. There was very little liquid in the uterus and the odor was not so evil. I inserted two capsules and left three with the owner instructing him to insert one into the uterus every day and to continue with the tonic for a week.

This cow had practically recovered within two weeks time.

Bilateral Sinuses of the Shoulder

W. R. J. FOWLER, V.S., B.V.Sc., Dept. of Surgery, Ontario Veterinary College, Guelph, Ont.

Animal brought to Ontario Veterinary College clinic for operation.

Bay Hackney mare, aged, used for farm work during the past few years, but previously had been worked in the city.

Patient presented a sinus on both shoulders in the same location, and having every appearance of an anterior fistulous withers, resulting from a diseased second dorsal spine. On examination, however sinuses were found to lead to the superior part of the scapula, both sides being similar.

When the patient was anaesthetized, and the sinuses opened, it was discovered that both cartilages of prolongation were ossified and the superior borders very rough and saw like. Movement of the limb had caused these rough borders to lacerate the muscles, resulting in the condition above mentioned. The interesting fact is that both sinuses were in the same position, both cartilages ossified to the same extent and there was no communication between them.

Echoes of the Great War

An Interesting Surgical Case

THOS. CHILDS V.S., Killam, Alberta

Patient:—A six year old mule, sex male, colour brown, physical condition good, was admitted to hospital suffering from a lacerated wound at the posterior aspect of the thigh, a few inches above the level of the stifle.

The wound was about 6 inches in the transverse direction, some 4 or 5 inches from above downward, and perhaps 3½ inches deep, a piece of tissue of the above dimensions having been torn away by a shell splinter.

The torn end of the biceps femoris (posterior part) and parts of the semimembranosus, and semitendinosus muscles bulged out through the wound making a rather formidable muscle hernia.

As such a large amount of skin etc., had been scooped away it was found impracticable to suture the wound in the usual way, and it was treated with astringents, etc., for some time but without success, so the method outlined below was resorted to with very pleasing results.

Restraint:—Chloral hydrate solution 1-20 intrajugularly.

A liberal area above and below the wound was then shaved and cleansed and rendered more or less aseptic.

An incision conforming in outline to the upper margin of the wound and some three inches distant was made being carried to the subcutaneous fascia only. A similar incision was made below the wound.

The old wound was now packed with the bismuth-iodoformum, paraffin mixture, the stifle flexed and forcibly retained in the flexed position, and the edges of the old wound approximated with sutures.

This procedure made the skin incisions above and below "*gap*" considerably, but here the underlying fascia kept the muscles in proper position, while the artificial covering of the original wound controlled the movements of the torn muscles until adhesions took place, without undue stress being placed on the sutures or sutured skin.

Healing was quite rapid and uneventful, no treatment, except tincture of iodine being applied during the healing process.

The animal was finally returned to its own unit as cured and fit for duty.

Serum Treatment of Glanders in Man

During the early part of 1922 there was a serious outbreak of glanders among the horses at Treesbank, Manitoba, and a young farmer who had several of his animals affected contracted the disease. He was brought to Winnipeg and Dr. A. Gibson had him under his care for several months at the Galloway-Gibson clinic, where he was vigorously treated without any very appreciable effect. In the early part of December, while discussing the case with Dr. F. Torrance, Dr. E. Watson, Dr. M. Gallivan, and Dr. L. Heath at the Biological Laboratory, Health of Animals Branch, at Ottawa, they told me they had a horse that they were endeavouring to immunize by the repeated injection of Mallein and that if we had the courage to try its serum on a human being they were willing to supply it practically ad lib. I brought home a considerable quantity and Dr. Gibson readily assented to its being tried out. To be brief, the results were simply amazing. This young man had a suppurating sinus running from below the knee to the ankle, and six shorter ones radiating from this region and riddling the foot and lower part of the leg, besides a large ulcer, one and a half inches in diameter about the internal malleolus. Indeed so grave was his condition that amputation above the knee was seriously considered.

After four or five injections of the serum the sores had ceased to suppurate and in less than three weeks were completely healed and the man is now about his work as usual.

In the meantime the young doctor who was attending the case had accidentally infected himself and came to Winnipeg with an angry sore one inch in length and three-quarters of an inch in width on the upper part of the dorsal surface of the right forefinger. The edges were undermined and on the slightest movement of the finger pus exuded everywhere from the floor. It was steadily progressing in spite of the application of iodine and other antiseptics and the *B. mallei* was found in pure culture in the discharge.

After three injections of the serum it assumed the appearance of a clean sore in which the bacillus could not be found either by culture or smear, and which went on and healed in the most kindly fashion until, in less than two weeks, the skin was again quite intact.

Dr. Gibson and Dr. Jackson will make a full report on these cases at an early date but in view of the possibility that there may be other sufferers from this disease I thought it right to ask you to publish this.

There is perhaps no chronic infection that has such a gruesome and distressing clinical course as glanders and any new and better method of treatment would be a boon. Any physician having the opportunity and wishing to try this serum can count, I am sure, on the eager co-operation of Dr. Torrance's Department.

*Copy of article sent to *The Canadian Medical Journal* by Dr. Gordon Bell of Winnipeg.

POULTRY DISEASES

Contributed by Dr. A. B. WICKWARE, Pathologist, Department of Agriculture, Ottawa

A Form of Pseudo-Tuberculosis

The presence of small white granules beneath the skin of fowls, the largest of which is about the size of a millet seed, is often confounded with or taken as an indication of an infection with Tuberculosis. In reality, these small granules or what might be termed "calcareous bodies" since they are largely composed of lime salts, are not in any way related to tuberculosis, although they may be found beneath the skin of birds suffering from this disease. These bodies, which are white in colour, are produced by the reaction of the tissues against the invasion of a small mite or parasite *Laminosioptes Cysticola.* It is a mite somewhat similar to the one which causes Scaly Leg and is supposed to live on the surface of the skin although it is rarely encountered, except in the connective tissue between the skin and muscles of affected fowls. In the pullet year it can be found in an active state and readily demonstrated under the microscope, but when the yearling stage is reached, the natural resistance of the animal body evidently leads to the death of the parasite which then becomes surrounded with lime salts forming the granules mentioned above. If these granules are taken and treated with a little acidulated water, the remnants of the parasite may be observed under the microscope. The condition is quite common and may be seen in fowls of any age, but is observed in its most aggravated form in old fowls which are rather poor in flesh. It is not in the least injurious to the health of birds and the carcasses of fowls so affected may be used for food purposes without any misgiving. To confuse the condition with tuberculosis might lead to the killing off of valuable flocks because of an affection which has no pathological significance and which is entirely foreign to Tuberculosis

A Peculiar Form of Blindness in Fowls

During recent years a peculiar disease affecting fowls, characterized by the development of a panopthalmitis which almost invariably terminates in blindness, has appeared in this country.

This disease does not appear to bear any relationship to the infra-orbital form of Roup so common throughout Canada, and unlike the

latter disorder, no eroding canker leading to a complete destruction of the eyeball, is present.

The clinical appearance of the disease can be best described by quoting the following extract from the letter of a correspondent:—

> "The bird's eye loses its bright colour which is replaced by a grayish one. The sight of the affected bird decreases as the gray colour augments. Birds become less and less active. In a few weeks, the bird is completely blind and death follows very soon after."

Another extract describing an outbreak in a different locality is as follows:—

> "A peculiar disease has appeared among my hens (Rhode Island Reds) which I would like you to advise me as to cause and treatment.
>
> SYMPTOMS
>
> Pinkish red around head and eyes. Scale coming over eyes, becoming blind. Inclined to scratch head and eyes. Appetite always fairly good. Lobes of ears hot and slight swollen. Breathing not free. In two cases where hens are blind,—hand feeding. Appetite good and not losing weight."

In answer to our inquiry the following information was received from the same source:—

> *Re: Blindness in Rhode Island Red Fowls.*
> Your letter received. Among my flock, on the whole there is a slight improvement, still there are quite a few affected. The death rate so far has been sixteen (16) birds. They still keep shaking and clawing the head and a whitish substance gathers around the eyelids. Appetite not what it should be for young birds. Only this year birds affected; older birds all right, but they have always been separated after hatching.

Our own observations of the conditions in fowls sent in for examination have shown that blindness may be unilateral or both eyes may be affected. In one of the Rhode Island Reds which was completely blind, an attempt was made at hand-feeding, but although palatable mashes of a savoury odour were prepared, the bird could not be induced to eat. When forcible feeding was attempted, the violent struggling of the fowl discouraged all further efforts in this direction. Without food and water, it was inevitable that the bird would die a lingering death and she was killed to terminate her suffering. Upon autopsy, no evidence of any organic disorder such as Tuberculosis was found and with the exception of the caeca, which contained a few round worms, the intestinal tract was free from tapeworms or other injurious parasites.

So far as we are aware, there is no article available in the literature dealing with the maladies of fowls, which describes such a condition, the nearest approach to it being an inflammatory condition of the eye due to the presence of a nematode worm *Filaria Mansoni* commonly known as Manson's eye-worm. In a number of instances, a search has been made for this parasite, but always with negative result, and it is probable that this worm, being indigenous to the Southern States,

would be only met with in exceptional instances, such as in fowls imported from these sources.

In the fall of 1921, an attempt was made to determine the infectiousness of this disorder, and for this purpose six pullets were selected and placed in contact with an affected bird showing all the symptoms of a severe panopthalmia.

A considerable quantity of the discharge from the eye was introduced into the eyes of three of these pullets, sterile swabs being used for the purpose, while the remaining three pullets were left as contacts. These pullets were kept under observation for three months and during this period no untoward effects were noted in any of the experimental fowls. The original subject died during the first month and upon autopsy, failed to show signs of any internal trouble.

In the spring of this year, another wyandotte pullet was received from a flock comprising a number of affected fowls. This pullet showed an opacity of only one eye and was therefore able to eat and drink. Since that time she has been in close contact with other pullets but we have failed to note in these latter birds any abnormality of a suspicious nature.

With the exception of smear preparations of the ocular discharge, which showed a variety of organisms, no bacterial studies have been made.

In theorizing upon the possible cause or causes of this disease, two lines of thought are suggested:—First—The condition may be hereditable, and to eliminate or confirm such a suspicion, selective breeding would have to be carried on, covering a period of at least five years. Second—The disease may be somewhat similar to Infectious Keratitis of cattle in which the Morax-Axenfeld bacillus appears to predominate, but in which, with one or two exceptions, all efforts towards direct transmission of the disease to healthy cattle by means of the ocular discharges have resulted negatively.

The Andrew Smith Memorial Fund

At a meeting of the Alumni of the Ontario Veterinary College held at Denver, Colorado, U. S. A., during the A. V. M. A. Convention, 1921, Dr. George Hilton and Dr. C. D. McGilvray were chosen trustees for the Andrew Smith Memorial Fund. While no definite steps have been taken with regard to what form the Memorial should be, it is felt that the principal and most important factor is obtaining the necessary sum of money. For this purpose the objective should be at least $5,000.

In another portion of the *Record* is published a financial statement,

showing receipts and disbursements of this fund. Contributions from graduates of the Ontario Veterinary College are invited, and will be gladly received by the Treasurer, Dr. George Hilton, 126 Lewis Street, Ottawa, Ontario, Canada. or may be mailed through this office, care the Editor. We shall publish from time to time a statement of this fund showing progress made.

Municipal Milk Inspection

W. B. PRICE, Carstairs, Alberta

The subject *Municipal Milk Inspection* could be possibly handled to better advantage by Departmental Inspectors. However, it occurred to me that this most important food received less supervision in this Province than is necessary. Secondly that there is no one more capable of supervising its production than the qualified veterinarian. Dairy Inspectors should be qualified veterinarians (and not lay-men). What would the lay-men be expected to know concerning those diseases and conditions, which, in Dairy Cows, render milk unfit for food? I refer to Tuberculosis, Actinomycosis, Anthrax, Septicmetritis, Mammitis, and other conditions and diseases too numerous to mention.

Milk is regarded much in the light as other foods, but differs in this respect that it constitutes, usually in its raw state, the principal diet of infants and invalids when at an immature age, when resistance is below par, hence the importance of rigid inspection in its production. Another feature I would like to mention is that the Dairy Industry of this Province is, and will be the mortgage lifter, and what is more important is the employment for the Veterinarian in this rapidly developing field.

It has been recognised that to obtain a clean milk supply the first and most important step is to rid the herd, supplying the milk, of diseased animals. Secondly, the stable and premises should be in a clean and sanitary condition. Dairies in which milk or cream are produced for sale, should be licensed, and no license should be issued unless the dairies conform to the required standard.

The stables should be lighted by a window or windows having not less than two square feet of glass area, and, at least, 500 cubic feet of air space for each cow. The ceiling should be, at least, 8 feet high. The floors should be constructed of concrete or some other impervious material.

Outlets for ventilation purposes should be constructed through the roofs of a sectional area of not less than one square foot for each ten cows. The inlets should be constructed through the walls near the

floor in a manner so that the total area would not be less than that of the outlet.

Proper drainage should be required in connection with every stable and from every shed, pen, yard, or other enclosure used in connection therein. These drains should be constructed so as to effectually carry away all liquid filth that would be dangerous or injurious to public health. In the event of no sewerage system a concrete cistern or reservoir should be constructed to receive the liquid filth until properly disposed of.

The stable or dairy should be properly disinfected at least, twice each year, and should be supplied with an abundance of pure water.

A separate milk house, scrupulously clean, should be provided for the cooling and proper handling of the milk, also facilities for the proper sterilization of all receptacles, bottles, etc. The milk house should be constructed with screened doors and windows, and a safe distance from any closet, manure heap, or anything liable to contaminate the milk.

The Dairy Cows should receive the tuberculin test, at least, once a year, also a careful physical examination. Dairy Bulls, should also be examined and treated in the same way as the cows. Re-actors to the test should be separated immediately from the non re-actors and disposed of either by immediate slaughter, or slaughtered after having been prepared for the block by drying off, and fattening. Valuable animals of exceptional milk production could be retained under the "Bang" system of control, thereby salvaging a new progeny of milk producers.

Milk or Cream from a herd containing re-actors, or herds not tested with the tuberculin test, should not be permitted to be sold, unless to a dairy company or dealer equipped with the necessary apparatus for pasteurization. Recording thermographs should be used in all pasteurizing plants, and last, but not least, the purchaser or consumer should be educated as to the proper manner of preserving and keeping milk at a correct temperature and in clean covered receptacles free from flies and odors.

"A cat having a fur coat was seen in Piccadilly to-day," reports a contemporary. If the cat had been without one it might perhaps have been worth writing about.—*Punch.*

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Water, according to a medical writer, is the only drink of which one never gets tired. This is corroborated by a Scotsman we know of, who has made a life-long practice of putting a drop or two of it in his whisky.—*Punch.*

Bovine Tuberculosis

The *Canadian Red Cross Journal* for January, in an Editorial under *Attacking Bovine Tuberculosis,* pays tribute to the Government Veterinarians.

In the article referred to, this paper states:—

"The general public do not realize fully the constant service in the aid of health that is rendered by the Government's permanent staff of trained veterinarians. Some animal diseases are transmissible to man, among them being, anthrax, glanders, and bovine tuberculosis. The former two are kept almost entirely suppressed by the vigilance of officials who take the necessary action and distribute to breeders and feeders of live-stock information to guide them in doing their part in the suppression of outbreaks.

Bovine tuberculosis is a menace to public health, particularly the health of children. It is a bigger problem, but it is being attacked in a broad-minded, intelligent and thorough manner as far as the means of the country permit and it is encouraging to feel that in the minds of those who are dealing with the question, there is hope of eradicating the disease in time.

One of the most encouraging features of the handling of this problem, is the readiness of stock breeders to adopt the measures, often at much expense to themselves, that are necessary to eliminate from a herd of animals, those which are known as reactors, that is, animals which, after tests, show signs that they are "carriers," at least, of the germs of the disease.

The first measure of importance in the elimination of bovine tuberculosis, which was undertaken by the Government, was that of the adoption of the Accredited Herd System. It was dealt with in an article in our June, 1922, issue. This plan met with such general approval, and has been so successful throughout the country that the Government has decided to adopt the Tuberculosis-Free Area system. This is a big advance in the control of bovine tuberculosis, and it is hoped that it will meet with the same success and support from breeders and feeders of livestock as did the Accredited Herd Plan.

A Dominion of Canada, in which it may be said that all the cattle are entirely free from tuberculosis is a high ideal. To attain it will require years of time and a great deal of patient effort and self-sacrifice in those engaged in the work, but no compromise should be made by consenting to any lower standard."

An Apology

In the December number we neglected to state in the headings of two articles by Drs. A. B. Wickware of Ottawa, and E. A. Bruce of Agassiz, B.C., that these gentlemen are members of the Pathological Division, Health of Animals Branch, Department of Agriculture, Ottawa.

To both Dr. Wickware and Dr. Bruce, the Record tenders its regrets for the oversight, also to the Veterinary Director-General, who directed attention to the error.

J. Landry, a quack, Thetford Mines, who was convicted and fined for the illegal practice of veterinary medicine, appealed the case to the Superior Court of the Province of Quebec. The appeal was dismissed with costs. A new case is pending against Landry whom it is alleged, has since changed his sign from "Veterinary Surgeon" to "Horse Hospital."

Foreign Body in Hen's Egg

A member of the *Record Staff* discovered in the albumen of a new laid hen's egg, a nematode worm about two inches in length. The specimen was forwarded to the Biological Laboratory, at Ottawa, and the laboratory report stated as follows:—

> "Foreign bodies, such as round worms, witch eggs, shell material, etc., have been frequently found in the eggs of fowls, these having become included in the albuminous portion during the process of formation.
>
> Round worms occasionally leave their normal habitat in the intestine and wander to the crop and oviduct. We have records of several cases where nematodes were found included in eggs, these having been discovered by Inspectors of the Live Stock Branch during the process of candling and grading.
>
> Just how they reach the albumin secreting portion of the oviduct is a matter of conjecture, but it is probable that they are either carried there by a reverse peristaltic action following the discharge of an egg, or by means of the vermicular motion possessed by these parasites."

On the strength of this report, we shall exhibit no surprise on discovering round worms, witch eggs, shell material or other foreign bodies with the albuminous portion of the festive breakfast egg, although we are dismayed at the prospect of not being able to demand our money returned for a product that was heretofore considered at the least, unappetizing.

The American Relief Administration in New York has received a plea from its representatives in Kiev, for funds to purchase cats. These useful animals are worth 10,000,000 rubles, and kittens at half price. Scanty food supplies are rapidly becoming depleted by hordes of invading mice, and there is a scarcity of cats, because of the number eaten during last winter's famine.

Since the Toronto Humane Society collected and disposed of over 9,700 surplus cats in 1922, the plea of the Russian Relief Administration has created no little comment in Toronto.

In seeking to discuss the possibilities of shipping cargoes of cats to Kiev, the *Record* representative found Mr. J. McNab Wilson, Manager of the Toronto Humane Society, busily figuring the local price of ten million rubles. Mr. Wilson declined to make any comment at the time, until he was convinced that the appeal, as contained in the report, is an established fact.

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England has recently welcomed her first woman Veterinary Surgeon, according to the English *Veterinary Record*. The lady's name is Miss Cust, a member of a well known English family who has worked among horses for most of her life.

***

Dr. W. H. Lake of Morden, Man. was recently elected Mayor of this town in the Municipal elections.

CORRESPONDENCE

The Editor cannot be held responsible for opinions expressed in letters appearing in the Record.

Major R. Timmis, on Breeding Better Horses

Editor, Canadian Veterinary Record,
Sir:–

The very excellent speeches delivered at the opening of the Ontario Veterinary College at Guelph by the Hon. Manning Doherty, Dr. Rutherford, Dr. Torrance, Dr. McGillvray, and others, made no mention of one point that I feel should be brought to the notice of the Veterinarians of this Dominion.

As one who has travelled this Province considerably in the search of suitable remounts, I think it is quite time that the farmer was made to appreciate what a saddle horse is and how profitable it is to breed such horses of the right type. I found in most places the old story, that the mare was bred to such and such a stallion because his fee was the lowest. The good work done by the Canadian Racing Association in importing so many fine Thoroughbred Stallions will, of course, lessen this danger, because the fees of these magnificent horses are less than others, but there are not enough to go all over the Province yet, let alone the Dominion.

It is quite clear that if we are to get Saddle horses, the Standardbred should generally be left out of it. The Thoroughbred must be bred to a mare weighing around 1,200 pounds, of good quality, with short back, wide chest, not too short in the neck, good feet and generally active. The flat sided buggy type of horse is no good and is detrimental to the live stock industry of this country, yet we see such nondescript mares being bred all over the country, with pitiful results. If the Veterinarian would impress upon the farmer the value of a good saddle horse today as compared with the driver or even the good draught horse, we should soon see the farmer producing such horses. Few farmers realize that Ontario horses have fetched up to $2,500 of late, after they have been schooled for the hunter show ring. Such horses, of the right type, can easily fetch, when quite green, $500 to $800. I hope other readers of the Record will come forward with their views on this important side of our Live Stock Industry. Riding is on the increase and will continue to be, as it is essential that people take more exercise now that walking has been ousted so much by motors.

There is one other point which I think all horse lovers should impress upon their local members of Parliament and influential friends on City Councils, and that is the providing of bridle-paths in cities, as they have in the States. At present it is terrible to see so-called horsemen galloping horses on the hard roads, and yet, when a man hires a saddle horse, he must have somewhere to go. In Toronto we have one bridle-path to my knowledge, and that is in High Park. This is a very sad state of affairs. Let all horsemen get busy and do something.

Yours, etc.,

Stanley Barracks, Dec. 15th. R. S. TIMMIS, Major.

The A.V.M.A. Convention, Montreal

The forthcoming convention of the A.V.M.A. which is to be held in Montreal on August the 27th, 28th, 29th, 30th and 31st of this year, will constitute the largest representation of Veterinary Surgeons the world has ever known.

The Local Committee have arranged for the convention to meet at the Mount Royal Hotel, Montreal. This hotel is the largest and best equipped hotel in the British Empire, and offers over 1,000 bed rooms, all with baths. It is thoroughly modern in every sense, and can provide the best accommodation for the tourist. One of the greatest factors in connection with this building is that its spacious assembly halls are away from any source of noise from the outside.

The Local Committee has taken steps to provide a splendid program of attractions for the ladies, whom it is hoped will be well represented. Montreal lends itself excellently for the purpose of this convention in many ways, and no expense is to be spared in providing a suitable entertainment program.

Entertainments already arranged include:—

1. A Boat trip through the Lachine Rapids.
2. A Boat trip around Montreal Harbour, which is the largest grain exporting harbour in the world.
3. Visit to Mount Royal Park in stage coaches.
4. Visit to McGill University and reception by the faculty.

Invitations have already been sent to the British and French Governments inviting them to send delegates to this convention. It is confidently expected that Sir Stewart Stockman will be present, as well as a distinguished representative from France.

A strong appeal is made to members of the Canadian profession who can possibly attend these meetings at Montreal. The Local Committee desire it to be distinctly understood that visitors will be made entirely welcome, and while it is desired to obtain more members for the A.V.M.A. it is not actually essential that they should join.

Births

Davis—To Dr. and Mrs. H. J. Davis, Aylmer West, Ontario, in August, a son "John Lindsay."

Simard—To Dr. and Mrs. P. E. Simard, at Montreal, Quebec, on January 4th, 1923, a daughter, Mary Phoebe.

Obituary

The Montreal Veterinary College has suffered the loss of one of its younger professors, Dr. O. Laroche who died suddenly at his residence, Chambly Cautou, Quebec. Dr. Laroche was Lecturer in anatomy at the College and was well known in the district of Montreal where he practised for eighteen years. His loss will be mourned by his widow and a young son, also three brothers, P. Laroche, V.S., A. Laroche, M.D., and Paul Laroche, all of Montreal. The funeral was held at Chambly Cautou, Quebec, in the presence of many of his friends. He was 40 years of age.

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Dr. J. H. Villeneuve, Montreal, has been bereaved through the loss of his mother-in-law, Mrs. Sigman, who died following a brief illness at Dr. Villeneuve's residence, with whom she had been residing for twelve years.

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Dr. J. C. Bonnett, Veterinary Inspector, at Snowflake, Manitoba, died at St. Boniface Hospital on November 20th, 1922. He was 71 years of age, was a native of London, England, a Graduate of the Royal College of Veterinary Surgeons in 1877 and became a Member of the Veterinary Association of Manitoba in 1906.

The Contagious Diseases Division of the Health of Animals Branch have established an Inspector at Smiths' Falls, Ontario, for the purpose of testing cows supplying milk to the Municipality under the Municipal Tuberculosis Order. Dr. J. G. Davidson of Toronto, has been assigned this duty.

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It is expected that the Quebec Government will appoint two additional Bursors this year, to be named by the Montreal Veterinary College to follow postgraduate courses in England and France. Such a move will have the endorsation of the whole Canadian profession.

ASSOCIATION NEWS

Prince Edward Island Veterinary Association

The Annual Meeting of the Prince Edward Island Veterinary Medical Association (adjourned from Dec. 23/22) was held in Dr. Pethick's office on Wednesday, Jan. 10th, at 8.00 p.m.

There was a fairly large attendance considering the almost impassable condition of the roads. The meeting was devoted almost entirely to routine business, which was discussed at considerable length.

The name of one member was ordered to be written off the roll for unprofessional conduct.

Dr. J. A. Allen was re-elected President, Dr. I. G. Croken was re-elected Vice-president. Dr. C. J. Bousfield was elected Secretary-treasurer in place of Dr. W. G. Church resigned. Dr. J. A. O'Keefe was elected Registrar in place of Dr. T. Cosgrove. Drs. Notting, Leckie and Church were elected Councillors for 1923. The President addressed the audience before the close of the meeting. He emphasized the importance of co-operation in all things pertaining to the welfare of the Association. Altogether his remarks were very optimistic for the future of the Association, which is rapidly rounding out into a good healthy organization.

It has been suggested that it would add materially to the interests of the profession to hold a summer meeting when travelling conditions are more pleasant. The programme for this meeting will be announced later.

C. J. Bousfield, V.S.
Secretary-treasurer.

Veterinary Association of Saskatchewan

The annual meeting of the Veterinary Association of Saskatchewan was held at the University of Saskatchewan July 18th, 19th and 20th, 1922. The report of this meeting has been held up by the Secretary in order to obtain reports as to results obtained from operations performed at the clinic, this however appears to be a difficult matter, only one letter having been received to date.

The meeting convened in the Live Stock Pavilion at 9.30 a.m. Tuesday July 18th, 1922, the President Dr. M. P. McClellan occupying the chair.

The minutes of the previous meeting held at Regina, August 2nd, 1921, were adopted as read.

The Secretary presented the financial report for the year with the auditor's statement and on motion of Dr. Wm. Reid and Dr. W. Spiers the report was adopted.

The election of Officers was proceeded with, Dr. Wm. Reid and Dr. W. Spiers being appointed scrutineers by the President, with the request that they report to the meeting the result of the ballot.

The Scrutineers reported that Dr. N. Wright, Saskatoon, Dr. J. M. Fawcett, and Dr. M. P. McClellan received the largest number of votes. The President therefore declared them elected to the council for the customary period of two years.

The Secretary reported that the Government grant under the Agricultural Instruction Act would be available as in former years to assist in defraying the expenses in connection with the clinic, and that Dr. L. A. Merillat was expected to reach the city in time to take charge of the clinic. A number of surgical cases being on hand, it was decided to hold the clinic on the next succeeding days July 19th and 20th.

The President Dr. McClellan appointed the following members to act in the capacity of Chairman of their respective committees:

Restraint, Dr. Head; Surgical Supplies, Dr. N. Wright; Anæsthetics, Dr. E. C. Gaw, Perdue; Assistant to Dr. Merillat, Drs. Skelton and Spiers.

The meeting then adjourned to make the necessary preparations for the clinic.

Clinic.

1. Registered Percheron Stallion. "Laryngeal Hemiplegia." The mucous membrane from the affected side was removed with the Blattenberg burr, the operation being performed in the recumbent position, with local anaesthesia.

Report:—The Secretary received a letter from the owner dated December 27th, 1922, in which he stated that the animal appeared to be improved, but had frequent coughing spells.

2. Black gelding. Laryngeal Hemiplegia. Operation performed in a similar manner, technique restraint, etc.

"No report"

3. Grey Mare.—Odontoma. The animal was cast and secured and operated upon with local anæsthesia. An island of bone above the enlargement was removed and an Odontoma the size of a base ball removed.

4 A seven year old Bay mare was presented wth a fistula involving the second pre-molar. The patient was cast and secured in

the recumbent position with the affected side up. The operative area was shaved and a 1-1,000 solution Mercuric chloride applied. Anæsthesia (local) Cocaine and Adrenalin chloride. A disc of bone immediately over the affected tooth was removed from the alveolar plate and tooth removed with the aid of the tooth punch. The cavity was curetted and packed with absorbent cotton soaked in a solution of Mercuric chloride 1-1,000.

5. A black gelding was presented with a sternal fistula of long standing.

The patient was cast and secured, area shaved and disinfected, an incision which extended to the cartilage was made, and both curette and actual cautery employed.

6. A black mare was presented with a condition diagnosed as "Carcinoma" of the eye. In this case surgical interference was considered inadvisable as the condition had advanced to a degree, the animal was discharged.

7. An aged bay mare was presented with "Nasal Stenosis."

The condition was diagnosed as an Empyema of the facial sinuses and nasal polypus. The animal was placed in the recumbent condition, facial sinuses trephined to permit escape of contained pus, and an island of bone removed of sufficient size to allow removal of polypus. Relief was apparent immediately the animal was allowed to rise.

On the morning of the 20th inst., the members were invited to attend a meeting of the Agricultural Societies which met in the Live Stock Pavilion, and proved to be very interesting to everybody. The Live Stock (Show) at the U being paraded for the benefit of the meeting, and a very interesting address by the Dean, Prof. W. J. Rutherford, assisted by Prof. Shaw on matters pertaining to Live Stock production, breeds and breeding, etc., Dean Rutherford laying considerable emphasis on the duties of the Veterinary profession in the matter of encouraging the use of good sires and suitable breeds of the different kinds of stock which go to make up the ideal farm of the day in this Western country. At the conclusion of this meeting the members were invited to lunch as the guests of the University.

A number of the members met in the writing room at the King George Hotel at 8 p.m. when Dr. Barker, Chief Inspector for Saskatchewan, and Dr. A. E. Cameron, Research Laboratory, Lethbridge, gave brief addresses, which evoked considerable discussion.

A discussion also took place as to the time and place at which the annual meeting in 1923 should be held. It was finally decided to hold the meeting during the second week in the month of August, 1923.

R. G. Chasmar, V.S.
Secretary-Treasurer

Central Canada Veterinary Association

The Central Canada Veterinary Association held its twentieth annual meeting in the City Council Chamber, Ottawa, Ontario, on Tuesday, January 16, 1923.

The programme called for a business meeting in the morning, with papers and professional topics at the afternoon session, followed by an informal dinner in the Russell Hotel in the evening.

The attendance was smaller than usual and somewhat disappointing to the officers.

The executive council of last year were re-elected on a single motion, with the exception of the Secretary-Treasurer, Dr. C. H. Weaver, who resigned. The vacancy was left open by motion, to be filled later by the executive. Dr. W. H. Marriott, of Ottawa, has since been elected by the council to fill the vacancy.

Considerable time was devoted to the discussion on the question of the Ontario Veterinary Association taking over the handling of the Ontario Practice Act. It was fully decided that a representative should be sent to Toronto to meet the Ontario executive, following their written request for same. However, at the following council meeting, the President vetoed the motion on the grounds of insufficient funds. The Ontario Veterinary Association was communicated with by the President, stating the views and wishes of the Central Canada Association voiced at the meeting.

The President, Dr. George Hilton, Ottawa, feels, that while the finances of the Association are not large, the audit shows they are sound, and if handled with care, through this temporary period of depression, no difficulty should be experienced in maintaining a satisfactory balance in the future.

During the afternoon, two excellent papers were read and discussed. The first, on *Azoturia* by Dr. Campbell of Wakefield, and the other by Dr. Perley of Hanover, N.H., U.S.A. on *Control of Tuberculosis in the New England States*. Both papers were excellent and opened up lively and interesting discussions.

The Meeting concluded in a very enjoyable dinner interspersed by suitable entertainment in the way of songs, readings and impromptu speeches by the members.

Owing to illness of the President, Dr. Bean of Winchester, Vice-President, presided at the meeting.

C. H. Weaver, V.S., Ottawa.

Dr. C. H. Higgins of the Lederle Antitoxin Laboratories, New York was in Toronto on a business trip during early part of the year.

Ontario Veterinary Association

The Winter meeting of the Ontario Veterinary Association was held at the Ontario Veterinary College, Guelph, on Feb. 7th and 8th.

Mayor Wm. Stephens of Guelph gave the address of welcome at 10.00 .am. on the first day, which was responded to by Dr. F. C. Grenside.

Dr. Irvine, President of the Association, next addressed the meeting.

The afternoon was occupied with an extremely interesting symposium on Bovine Contagious Abortion and Sterility. Drs. F. W. Schofield, R. Gwatkin and J. N. Pringle of the O.V.C. staff, and Dr. W. L. Boyd, Professor of Veterinary Medicine of the University of Minnesota were the speakers, the latter illustrating his address with lantern slides.

The evening session commenced with a social time consisting of music, speeches and singing, to which the ladies were invited, the students of the college taking a prominent part on the programme in putting on a skit on the staff.

The whole of the second day was devoted to clinics in the up-to-date amphitheatre. Space will not permit a detailed account of the operations and demonstrations. Drs. J. Dunn and R. A. McIntosh were the anæsthetists; Drs. J. G. Harvey and J. A. Campbell looked after the small animal clinic, while the large animal clinic was taken care of by Drs. W. J. Fowler, and J. Porter.

Demonstrations in the application of the tuberculin tests were made by Dr. C. D. McGilvray, and Dr. Boyd gave some demonstrations in sterility work.

The meeting was fairly well attended, and thanks were extended to all, especially the staff of the O.V.C., who helped to make the meeting possible.

J. S. Glover,
Secretary-Treasurer & Registrar

New Brunswick Veterinary Association

In testifying to the useful service the *Canadian Veterinary Record* is doing for the profession I want to ask if we are all "doing our bit." Assuming that the objects of the journal are to promote good fellowship and co-operation and cohesion among us besides assisting in gradually raising our status as a profession, are we not too prone to allow others to do the work, thinking that subscribing to it is enough without attempting to furnish useful material to keep the Record going. The journal is yours and mine to make or mar. We can make

it whatever we desire, and if we subscribe to it, write for it, and boost it we will make the Journal, what it should be, a real power and a professional asset.

E. H. Cook,
President.

Alberta Veterinary Association

The Annual Meeting of the Veterinary Association of Alberta was held at the Palliser Hotel, Calgary, on the 29th September, 1922. The attendance, though not as large as previous years, was fairly well represented by members from all parts of the Province.

The members and visitors were welcomed by the President, Dr. A. C. Murphy, of Edmonton, who then introduced Dean Howes, of the College of Agriculture, University of Alberta, Edmonton. The Dean congratulated the Veterinary Association on its professional standing in the Province. He also spoke of the opportunities available for greater advancement through its affiliation with the University of Alberta. He pointed out the great need of research work by the veterinarian in the various problematical diseases and conditions affecting live stock, also the urgent need of propaganda among the laymen and stockmen in order to secure their co-operation for the eradication of Tuberculosis. In concluding his very interesting address, the Dean extended a hearty welcome to all the members to visit the University in the exchange of views regarding live stock.

On the motion of Dr. Talbot, seconded by Dr. Cairns, a hearty and unanimous vote of thanks was accorded the Dean for his courtesy in opening and addressing the meeting.

The following programme was then carried out:–

Minutes of last meeting, by the Secretary, Dr. W. B. Price, Carstairs.

Discussion re last meeting, by members.

Address: "*Reminiscences of a Veterinarian,*" by the President, Dr. A. C. Murphy, Edmonton, Alta.

Roll Call and Correspondence. Letters of regret were then read from the following, expressing their inability to be present, and their sincere wishes for a successful meeting: Drs. F. Torrance, V. D. G., J. G. Rutherford, C. M. G., Geo. Hilton, S. F. Tolmie, C. D. McGillvray, C. H. Sweetapple, R. Barnes, W. J. R. Fowler, and D. Warnock.

Address: "*Tuberculosis,*" by Dr. J. C. Hargrave, Chief Veterinary Inspector, Medicine Hat, Alta. Dr. Hargrave's address covered principally the experiments of Dr. Schroeder, in the relation of in-

fection between infected and healthy animals, also the precautions necessary to be taken in the actual cleaning up process of the premises and buildings, following the tuberculin test. The address was very instructive and of great value to the practitioner, being received with a great deal of interest by the members.

Report of Secretary, by Secretary.

General discussion re Association and *"Canadian Veterinary Record."* The subject regarding the raising of the Annual Dues of the Association from $5.00 to $7.00 to include a yearly subscription to the *"Canadian Veterinary Record"* was thoroughly discussed. Some time previous to the Annual Meeting each member of the Association received a form of ballot from the Secretary requesting his support to the only Canadian Record of veterinary news in the Dominion, and it is to be regretted that the replies received were very few with only two negatives. After a further discussion it was suggested that owing to the few replies received by the Secretary, and the small representation of members present, it would not be desirable to take any action at this meeting.

A motion was then proposed by Dr. Wainwright, seconded by Dr. Talbot, and carried, that a notice of motion, to be dealt with at the next Annual Meeting, as follows: That the Veterinary Association of Alberta adopt the *Canadian Veterinary Record* as their official organ.

Dr. Talbot, Provincial Veterinarian, then followed with an address on *"Sterility in Cows,"* which created a keen discussion among the members.

The next paper, *"The Horse in War,"* by Lieut.-Col. D. S. Tamblyn, D. S. O., Calgary, was of great interest, and pointed out the superiority of the horse over the Tank and Motor-driven vehicles in actual warfare.

Owing to the late hour, the following papers were not presented:— *"Azoturia,"* by Dr. A. J. Malmas, Didsbury, Alta., and *"Municipal Milk Inspection,"* by Dr. W. B. Price, Carstairs, Alta.

The election of Officers was then proceeded with:— Hon. President: Dr. P. R. Talbot, Provincial Veterinarian, Edmonton; President: Dr. A. J. Malmas, Didsbury, Alta.; Vice-President: Dr. B. C. Barlow, Bassano, Alta.; Secretary and Registrar: Dr. W. B. Price, Carstairs, Alta.; Executive: Dr. J. T. Sharpe, Calgary; Dr. A. M. McKay, Calgary; Dr. F. F. Cairns, Edmonton.

A hearty and unanimous vote of thanks was accorded the retiring officers, and the meeting then adjourned.

W. B. PRICE, V.S.
Secretary and Registrar.

Official Opening of Ontario Veterinary College at Guelph

The formal opening of the Ontario Veterinary College, at Guelph took place on Dec. 12, 1922, and was attended by over two hundred. Hon. Manning Doherty, Minister of Agriculture, presided, while seated on the platform with the Minister were: Dr. J. G. Rutherford, of the Board of Railway Commissioners, Dr. F. Torrance, Veterinary Director General, Rev. (Captain) C. H. Buckland, M.P.P., Prof., R. Harcourt, representing the O.A.C., Dr. F. C. Grenside, representing the City Council, Dr. C. D. McGilvray, Principal of the College, Major R. S. Timmis, and other noted persons interested in the promotion of agriculture and veterinary science.

In declaring the building open, Hon. Mr. Doherty expressed the pleasure he felt on behalf of the Government, Dr. McGilvray and his Staff in welcoming the visitors on an occasion which in his opinion, marked another forward step in the progress of Veterinary Science in Canada. He traced the history of the College from its commencement, and assured those present that it would have his constant support. In the course of his remarks the Minister said: "When you make a survey of the building I hope it meets with your approval. I trust that your judgment will be that we have everything modern and up-to-date. For a few reasons we may be carried away with the perfection of the building, but the greatness of the Ontario Veterinary College depends not only on the facilities afforded by the equipment and building, but rather on the effectiveness and efficiency of the student body and the staff. Any educational institution that depends on its building and equipment alone is sure to fall short of obtaining the real object. We feel, with the equipment, building, student body and staff, that this institution will prove an effective power in this Province."

The next speaker was Dr. J. G. Rutherford, who carried his hearers back to the early days of the O.A.C., forty-seven years ago, and also to the early days of the O.V.C., in Toronto. Dr. Rutherford predicted that the move will go down as a great credit to Hon. Manning Doherty and Dr. McGilvray. In all his years of experience, the speaker had never seen a finer veterinary college building. In closing, Dr. Rutherford said that after all agriculture is the basic industry of this Dominion. More real money comes out of the industry than any other. There was no sound agriculture without live stock, no good live stock without well-informed live stock men, and no live stock at all unless there were well trained and conscientious veterinarians.

The Veterinary Director General, Dr. F. Torrance, brought messages of regret from Hon. W. H. Motherwell, Hon. S. F. Tolmie, and

Dr. Grisdale. He said the building was a magnificent one and that it had not been praised half enough. His only hope was that the staff, with increased facilities, would turn out a body of graduates that would be a credit to the College and the Province. Referring to the advancement in the Veterinary Profession, Dr. Torrance cited a few instances where the discoveries in the veterinary field had been of assistance to the Medical Profession. He was pleased to say that the remarkable record of the Dominion, as regarded the health of live stock, was the basis of the claim for the lifting of the cattle embargo, and stated that this record of freedom from disease had been maintained for over thirty years. In conclusion he stated that the opening of the College marks an epoch in the history of veterinary progress.

Rev. (Captain) C. H. Buckland, the local member, expressed much pleasure at being present at the opening of the College and congratulated those concerned on the move to Guelph and the new building.

In the absence of President J. B. Reynolds, Prof. R. Harcourt extended a welcome to the Ontario Veterinary College. "We welcome the students, because we feel that while our work has to do with plants and animals, the veterinarian looks after the health of the stock. He felt the two things should be closely associated in the line of research. Prof. Harcourt also welcomed the veterinary students to the social and athletic life of the O.A.C., and hoped that the best of feeling would prevail between the two institutions.

The last speaker of the afternoon was the Principal of the new College, Dr. McGilvray. He expressed himself as more than pleased at the large turn-out at the opening ceremonies. He said that when the move to Guelph was at first suggested, there was weeping and gnashing of teeth, and the rumour was circulated that the student body would leave the institution and the faculty would be broken up sooner than make the change. The Principal stated that no such a catastrophe had occurred, and remarked that all the students were here, and although it had been necessary to disconnect many associations on the faculty through inability of a few members of the staff to come to Guelph, their places had all been filled with capable men, the sails were all set, and in spite of any obstacles that were in the path, everything was now going ahead at full speed. "We are getting along all right and we will continue to do so," commented Dr. McGilvray.

The banquet held in the evening at the Royal Canadian Cafe was the first of its kind held in this city under the auspices of the Ontario Veterinary College, and proved to be a successful function. The entire student body of the College was present. The guests included those present at the opening ceremony in the afternoon. In addition

there were present Hon. G. S. Henry, ex-Minister of Agriculture, and Mr. W. B. Roadhouse, Deputy Minister of Agriculture.

Dr. McGilvray took charge of the program following the excellent supper provided by Mine Host Yeates, during which music was furnished by a joint orchestra from the O.A.C., and O.V.C. After the toast to the King, there was a quartette composed of O.V.C. students, followed by a toast to the City of Guelph, responded to by His Worship Mayor Howard.

The toast to the O.A.C., was proposed by Mr. Egan, of the Ontario Veterinary College.

Following a piano solo by Mr. Burdick, an O.V.C., student, a toast to the Province of Quebec was proposed, and responded to by Mr. Baker and Mr. Harris, two Veterinary Students from Quebec, and Dr. Daubigny, Principal of the Veterinary College of the University of Montreal, who said he was very proud to be associated with so many prominent men of the Province of Ontario, and delighted to be able to be present at the opening of the college. He brought greetings and felicitations from the Province of Quebec and the Laval Veterinary College of which he was the Head. He was glad of the progress which had been made in Ontario, and hoped the efforts of the Government would be appreciated by the whole country. He wished it the greatest possible success, and stated that Quebec was in perfect harmony with Ontario in their efforts to elevate their profession.

Four and twenty black-birds,
Feeling awful dry,
Took a trip to Canada,
Bought a case of Rye.
When the Rye was opened,
They all began to sing,
Who the hell is Harding?
God Save the King.

"Oxo Cubes"

"OXO CORDIAL"
"LEMCO"

"FRAY BENTOS" Canned Corned Beef
"FRAY BENTOS" Canned Roast Beef
"FRAY BENTOS" Canned Ox Tongue

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ABSTRACTS and REVIEWS

The Anatomy of the Horse

By Sir John M'Fadyean, M.B., C.M., B. Sc., Third (Revised) Edition, Chapters XI. pp. 338 with 48 plates in colours and 54 figures. Published by W. & A. K. Johnston Limited, Edinburgh and London. Price 30 shillings net.

The work of Sir John is widely known to most English speaking students. In nearly all Veterinary Colleges it is an established dissecting manual. The third edition submitted for review, it would appear that a few minor revisions have been made in describing certain structures, many of which are but improvements in diction.

In the opinion of the reviewer, it is thought that Chapter X, on dissection of the abdomen, might possibly be enhanced by using more original figures to illustrate the text. Describing the separate organs, figure 45 of the inflated stomach could be improved, by a better. drawing, assuming more of the characteristics of the normal organ.

The chapter on the brain, and its meninges together with the plates illustrating them, have always been admired, and in our humble opinion constitute one of the best descriptive chapters in the book. Those of us who are interested in surgery and anatomy welcome the appearance of the third addition to whom it will continue to serve as a very helpful guide.

W. J. R. F.

Fox Ranching in Canada

J. G. ALLEN, B.V.Sc., and J. ENNIS SMITH, B.A.Sc., Canadian Department of Agriculture Bull. No. 12 new series.

Quite a comprehensive report of forty pages dealing with the management, sanitation, diseases, and nutrition of the silver fox. The bulletin is in two sections. The first part deals very extensively with sites and equipment suitable for the fox ranch. Dr. Allen impresses the reader with the importance of good sanitation, and explains how easily disease becomes spread among foxes that are penned up from year to year in small enclosures under indifferent conditions.

Methods of disinfection of pens are described in detail following exhaustive experimentation done by the author.

The chapter on the diseases of foxes, treats of the more common

ailments, principally parasitic, because, as Dr. Allen explains, foxes are not subject to many diseases due to specific germs, the principal one being distemper or influenza.

Section II. written by Ennis Smith concerns nutrition and feeding of foxes in captivity. The writer proceeds to discuss the process of digestion, foods, constituents of the food, deficiency diseases and food requirements and rations. Every phase of the foxes' life is provided for in a chart of rations and the food materials all concisely explained. Portions of this section dealing with food constituents are quite technical, but as successful fox farming is a problem of considerable complexity, it is assumed that the fox farmer must add to his knowledge, the why and wherefore of these facts which tend to promote good nutrition.

The bulletin contains a few illustrations none of which seem to be superfluous. Fox farmers will find that the authors have contributed a work which is of great value to them. A lot of the information contained in the bulletin represents the results of actual experimentation up to date. There are very few text books offering information on the subject outlined. T.C.E.

Wm. Hosey, of Dauphin, Manitoba was fined $50.00, and costs, at McCreary on Wednesday, November 22, for practising as a Veterinary Dentist which is contrary to the Veterinary Association Act of the Province of Manitoba. The fine and costs amounted to $69.50.

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Dr. G. E. Bracken, Neepawa, Man., a Graduate of the Ontario Veterinary College in the year of 1888, died at his residence on August 24th, 1922. He had been a Member of the Veterinary Association of Manitoba since 1899.

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Dr. W. J. Hinman of Winnipeg, attended the Kentucky Derby at Lexington during the month of September.

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Dr. H. Bradshaw of Portage la Prairie, Man., attended the Royal Agricultural Fair at Toronto and the International Live Stock Show at Chicago.

***

Congratulations to Dr. H. Pilon, V.S., of Vaudreuil, Quebec, who has been elected M.P.P. for his County for the tenth time, with a majority of over 800. Dr. H. Pilon is the father of A. Pilon V.S., and the late E. Pilon, V.S.

COLLEGE NOTES

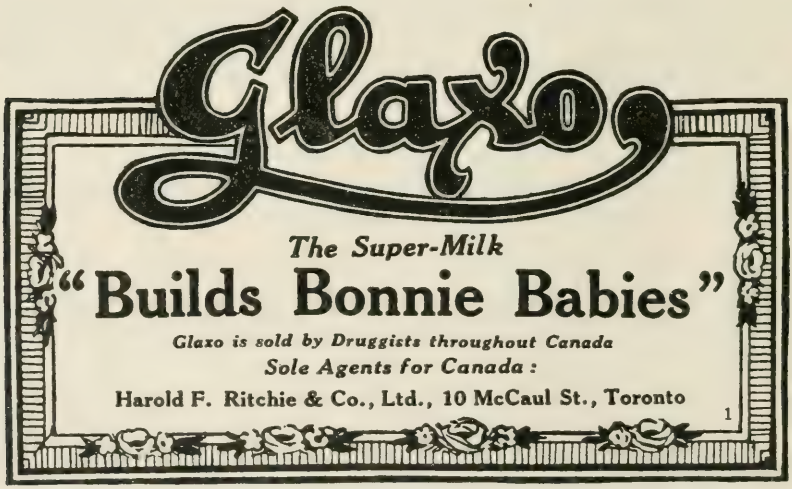
The Returned Men's Club of the O.A.C., and the O.V.C., held a dance on Friday evening Dec., 12th in the auditorium of the Ontario Veterinary College. About 90 couples were on the floor and all had a jolly good time, dancing to many of the old familiar war songs played by the College orchestra. Lunch was served later.

**
*

On Friday evening, Jan. 19th, a dance was held in the College auditorium under the auspices of the Omega Tau Sigma fraternity, delta Chapter. There was a good attendance, about 60 couples being present.

**
*

The O.V.C. soccer team is composed of men most of whom had never played before but the showing made adds much to their credit. They won two out of four games and tied a third. In the elimination contest the Fourth year "Aggies" won a hard fought game by playing 10 minues overtime. The O.V.C. team was composed of the following men:—Goodman, Bickell, Carpenter, Anderson, Booth, McKelvey, Coad, Clark, Edge, Jones, Slack. *(Continued on page 62)*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Ontario Veterinary College Notes

(Continued from page 60)

There is no foundation for the rumor, that the precedent established by the Ontario Veterinary College, moving to the country, so as to be near their subjects, is to be followed by the Department of Forestry, of the University of Toronto. The faculty of this Department state definitely they have no intention of going to the woods.

**
*

The Omega Tau Sigma fraternity, Delta Chapter, of the Ontario Veterinary College, gave a banquet at the Wellington Hotel on November 18th, in honour of the Officers and Delegates of the Grand Council, Out of town guests were:—Dr. W. H. Borcher, Dayton, Ohio, Dr. F. E. Lentz, Philadelphia, Penn., Dr. E. Sunderland, Ithaca, N.Y., Mr. E. F. Otto, Columbus, Ohio, and Mr. E. Brunette, Ithaca, N.Y. The Principal of the College and other members of the Faculty together with a large number of active Members contributed to the success of a very enjoyable evening. The Fraternity contemplates purchasing or renting a fraternity house for the convenience of its members.

(Continued on page 64)

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Ontario Veterinary College Notes

(Continued from page page 62)

Following is a list of prizes and honors for 1922. The Graduating Class of 1922 received their prizes at the closing exercises in the Spring of 1922, while the successful students in other years received theirs at an evening meeting held during December.

General Proficiency: GRADUATING CLASS

First prize.....G. R. Penhall.
Second prize.....C. W. Olson.
Third prize.....W. G. Thomson.
Honourable mention.....R. V. Fox, M. M. Davis, E. W. Bond.

General Proficiency: THIRD YEAR CLASS

First prize.....A. L. McNabb
D. J. Lawson
Second prize.....P. L. Rouse.
Third prize.....R. Macdonald.
Honourable mention.....R. G. Cuthbert,
A. R. Campbell, J. A. Coad, F. A. Clarke, L. S. Side, O. C. Spencer, C. S. Harris, E. Roe, W. A. Ross, H. M. Le Gard.

Canine Diseases:—Awarded by Dr. J. A. Campbell.
Special prize.....D. J. Lawson.

General Proficiency: SECOND YEAR CLASS

First prize.....H. P. Westerberg.

(Continued on Page 66)

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Ontario Veterinary College Notes

(Continued from Page 64)

Second prize ..... E. E. I. Hancock.
Third prize ..... J. G. Anderson.
Honourable mention ..... A. E. C. Goodman, J. S. Gray, L. D. Perry, E. R. Carpenter, C. E. Hagyard.

Anatomy:
First prize ..... H. P. Westerberg.

Histology:—Awarded by Dr. H. E. Batt.
Special prize ..... A. E. C. Goodman.

FIRST YEAR CLASS

General Proficiency:
First prize ..... G. A. Edge.
Second prize ..... P. J. Kelly.
Third prize ..... A. D. Spooner.
Honourable mention ..... G. Cairns, J. O. McCoy, W. J. Rumney.

Anatomy:
First prize ..... G. A. Edge.

Histology:—Awarded by Dr. H. E. Batt.
Special prize ..... G. A. Edge.

Dr. Schofield, Mr. Egan and Mr. Anderson were the Ontario Veterinary College delegates to the First National Conference of Canadian Students, which met in the Convocation Hall of the University of Toronto, Dec. 28th, to Jan. 2nd.

(Continued on Page 68)

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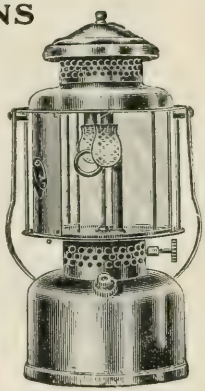

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Ontario Veterinary College Notes

(Continued from page 66)

Nearly every college in Canada was represented. There were 756 official delegates and among the visitors were delegates from Great Britain, United States, Germany, Poland, Hungary, Czecho-Slovakia, Holland, Norway, Sweden, Denmark, China, Japan, Korea, India, and Africa.

Some of the speakers who addressed the Conference were: His Excellency, Lord Byng, Sir Robert Falconer, Dr. A. Herbert Gray of Scotland, Premier Drury, Senator Belcour, Dr. Oliver, president of the University of Saskatchewan, Dr. John R. Mott, Hon. N. W. Rowell.

***

In games of outdoor soft-ball with the O.A.C., the O.V.C., have been able to hold their ground, winning two out of four games, the players were:—Anderson, Gray, Grant, Hagyard, Harvey, Hodgins, Lawson, Slack, Smith, Watt.

***

Chas. E. Hagyard was recently elected Vice-president of the Athletic Association.

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In the course of an address given before Toronto veterinarians a few months ago Dr. R. Barnes emphasized the fact that a Dominion inspector's duty did not end when he left the abattoir at night. Dr. Barnes pointed out that an inspector should be a booster for the department, and suggested that time spent in pointing out to the public how to obtain quality in foods would reflect to the credit of the service. In this connection it is interesting to note that these words were not altogether lost on the audience, as a local paper contains the information that Dr. Wm. Clarkson, of the Dept. of Agriculture, recently gave a very interesting and instructive address to a working men's club. During his address on nutrition the speaker explained the grading of canned foods and eggs.

***

Dr. H. H. Ross of Brandon, Man. is spending the winter months in the southern and eastern States.

***

Dr. C. S. Dickinson of the Contagious Diseases Division, Health of Animals Branch, has been transferred from Toronto to Winnipeg, Man.

***

Dr. C. Mackie, Field Division, Health of Animals Branch, has been transferred from Toronto District to Winnipeg, Man.

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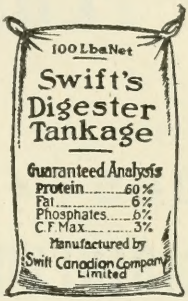

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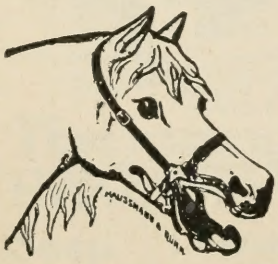

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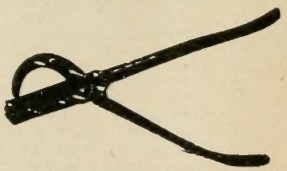

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